

**Prüfbedingung**  
Test condition

**A7/W30-35**

**Prüfnummer**  
Test number

**LW-458-19-71**

Messgrößen Measured variables	Einheit Unit	Mittelwert Mean value	abs. Fehler absolute error	rel. Fehler relative error
<b>1 Heizleistung</b> (heating capacity) inkl. Umwälzpumpe (included circulation pump)	W	<b>6462</b>	± 104	± 1.60%
<b>a Heizleistung</b> (heating capacity)	W	6485	± 102	
<b>b Lufteintrittstemperatur</b> (air inlet temperature)	°C	7.00	± 0.07	
<b>Luftaustrittstemperatur</b> (air outlet temperature)	°C	5.15	± 0.33	
<b>Luftdruck</b> (air pressure)	hPa	972	± 19	
<b>Relative Luftfeuchtigkeit</b> (relative humidity)	%	87.1	± 2.6	
<b>c Rücklauftemperatur</b> (water inlet temperature)	°C	30.01	± 0.05	
<b>Vorlauftemperatur</b> (water outlet temperature)	°C	35.02	± 0.05	
<b>Massenstrom</b> (mass flow)	kg h <sup>-1</sup>	1114.9	± 5.6	
<b>Hydraulischer Druckabfall</b> (hydraulic pressure drop)	kPa	-16.11	± -0.40	
<b>d Abtaudauer</b> (period of defrosting)	min	-		
<b>Heizdauer</b> (period of heating)	min	-		
<b>Relative Abtaudauer</b> (relative duration of defrosting period)	%	-		
<b>Abtauleistung</b> (defrosting output)	W	-	± -	± -
<b>e Niederdruck</b> (low pressure)	bara	-	± -	
<b>Sauggastemperatur</b> (suction gas temperature)	°C	-	± -	
<b>Hochdruck</b> (high pressure)	bara	-	± -	
<b>Heissgastemperatur</b> (hot gas temperature)	°C	-	± -	
<b>Flüssigkeitstemperatur</b> (condenser outlet temperature)	°C	-	± -	
<b>2 Wirkleistung total</b> (total power input) inkl. Umwälzpumpe (included circulation pump)	W	<b>1306</b>	± 12	± 0.91%
<b>Wirkleistung</b> (power input)	W	1334	± 10	
<b>Spannung</b> (voltage)	V	233.6	± 0.4	
<b>Stromaufnahme</b> (current consumption)	A	2.28	± 0.04	
<b>Scheinleistung</b> (apparent output)	VA	1600	± 8	
<b>Leistungsfaktor cosp</b> (power factor)	-	0.83	± 0.01	
<b>3 COP</b> (COP)	-	<b>4.949</b>	± 0.091	± 1.84%
<b>4 Umgebungstemperatur</b> (ambient temperature)	°C	19.7	± 1.5	
<b>5 Prüfdauer</b> (test duration)	hh:mm:ss	01:10:00		
<b>Prüfbeginn</b> (beginning of test)	hh:mm:ss	20:44:00	05.12.2019	2019-12-05
<b>Prüfende</b> (end of test)	hh:mm:ss	21:54:00	05.12.2019	2019-12-05

**6 Bemerkung** (remark)

- Messung wurde mit integrierter UWP durchgeführt / Measurement is carry out with internal installation pump
- Kompressorfrequenz / compressor speed = 40 Hz

**7 Prüfer** (supervisor) R. Rankwiler

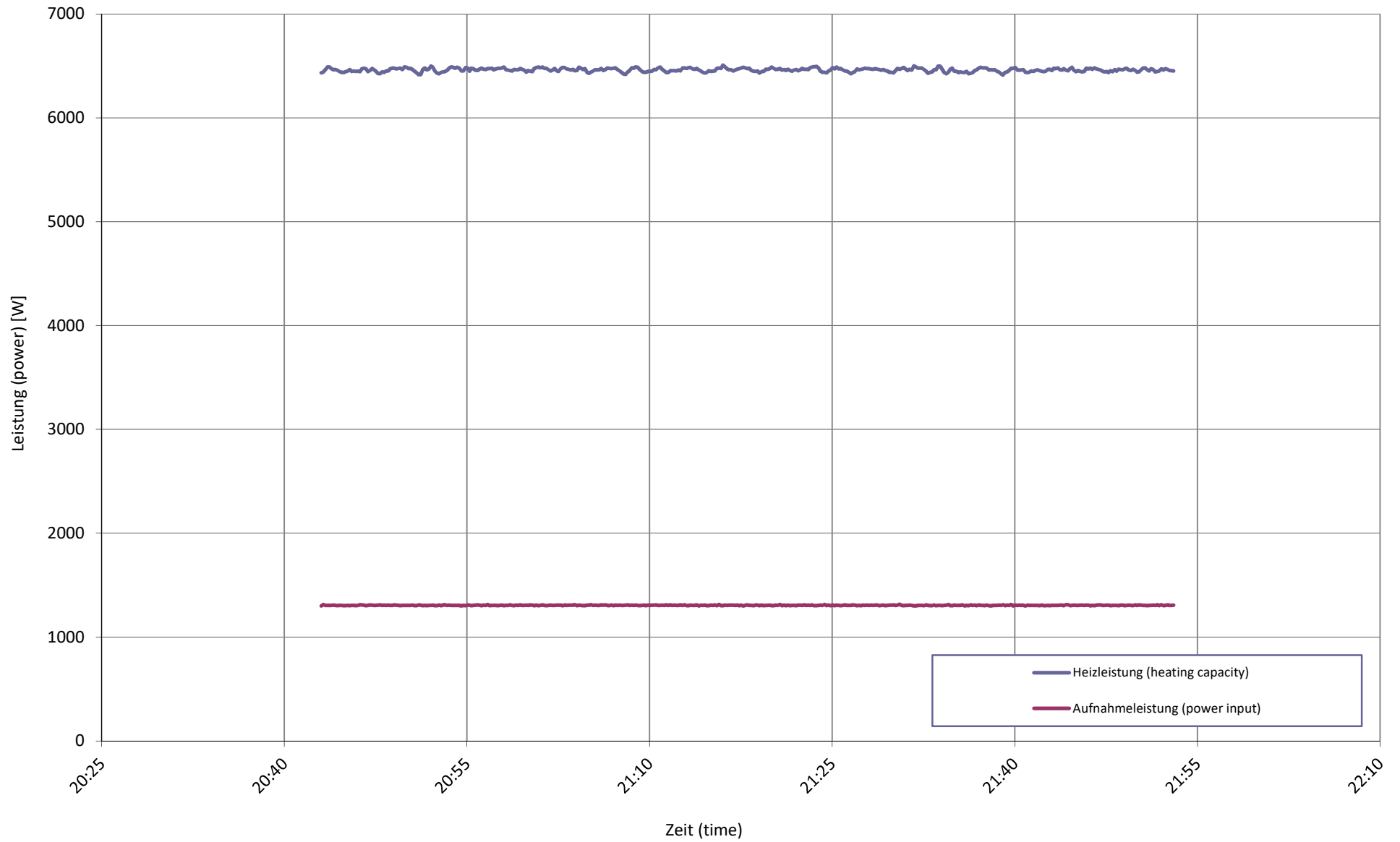
**Prüfnorm** (test standard)

EN 14511-2  
EN 14511-3  
EN 14511-4 clause 4.6  
EN 14825

passed  
passed  
passed  
passed

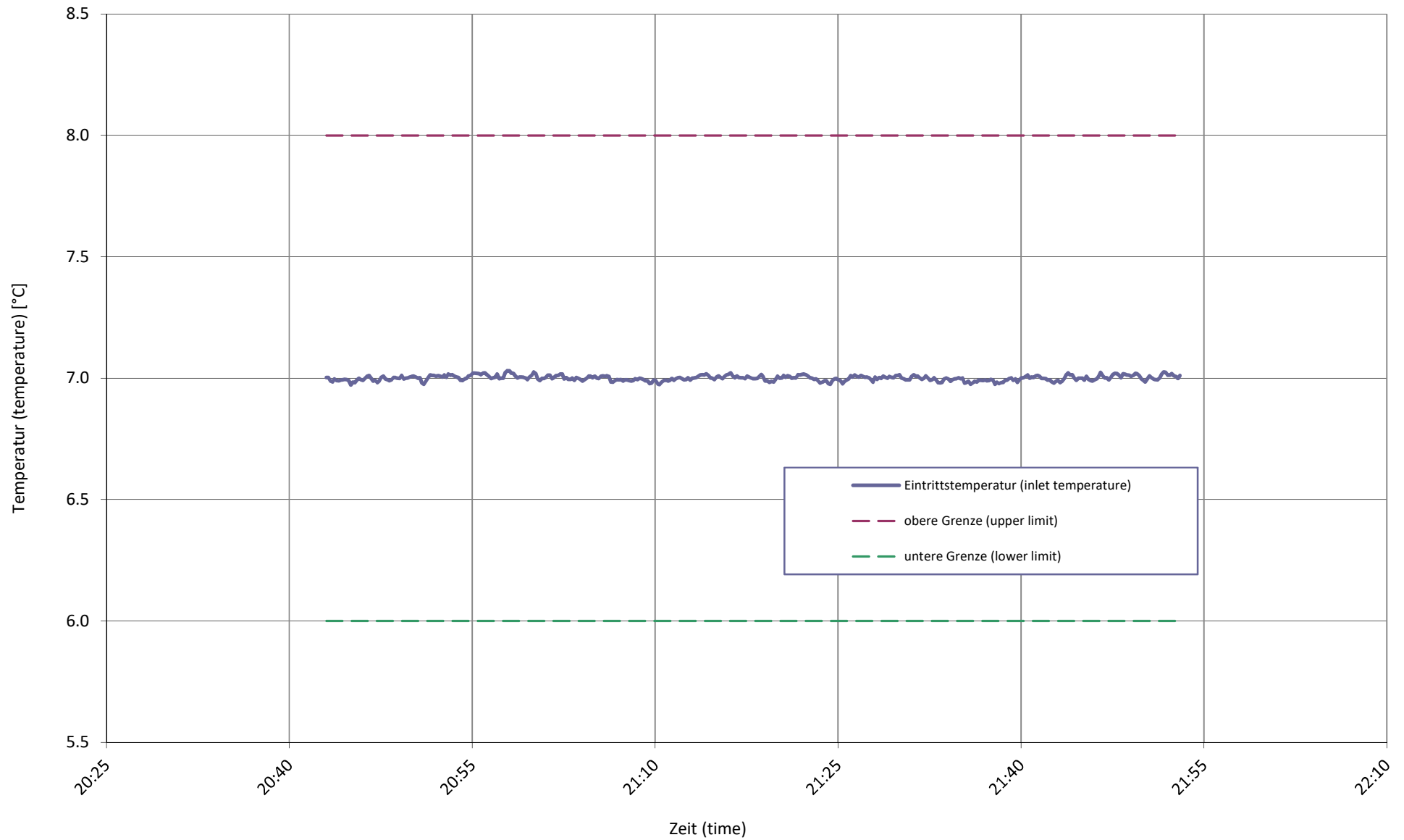
**Wärme- und Aufnahmeleistung bei**  
heating capacity and input power at

**A7/W30-35**



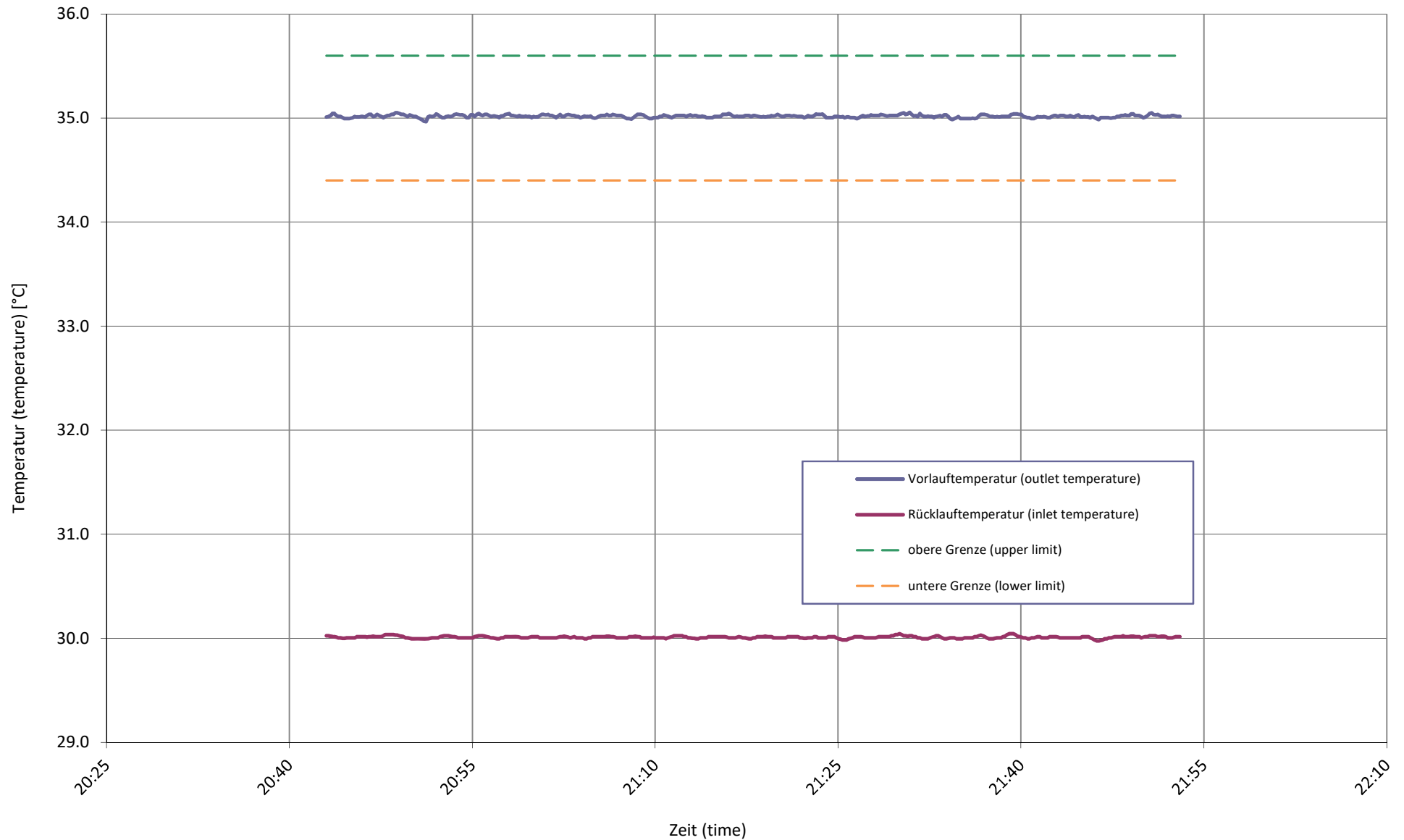
Quellentemperatur bei  
source temperature at

**A7/W30-35**



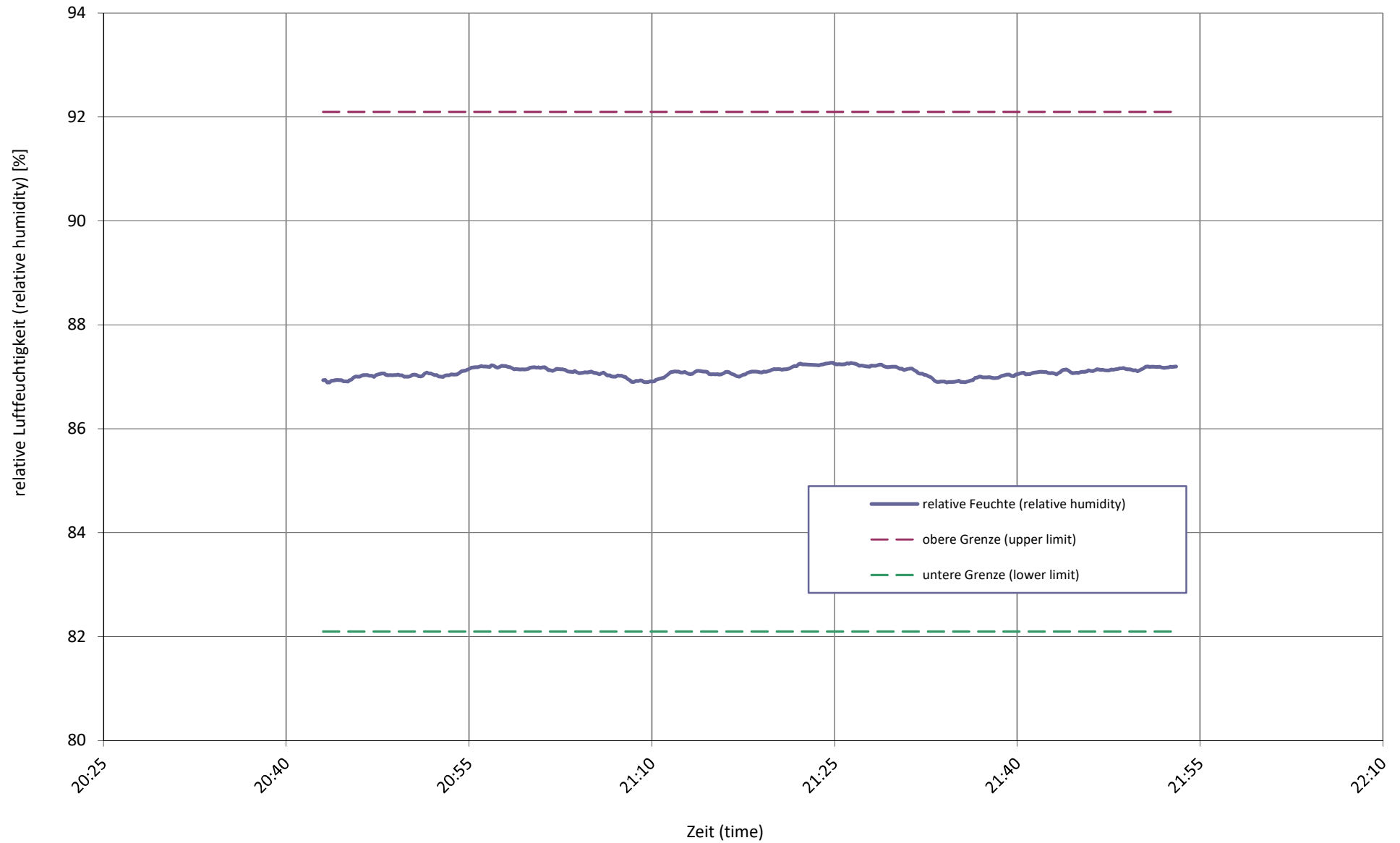
Senktemperatur bei  
sink temperature at

# A7/W30-35

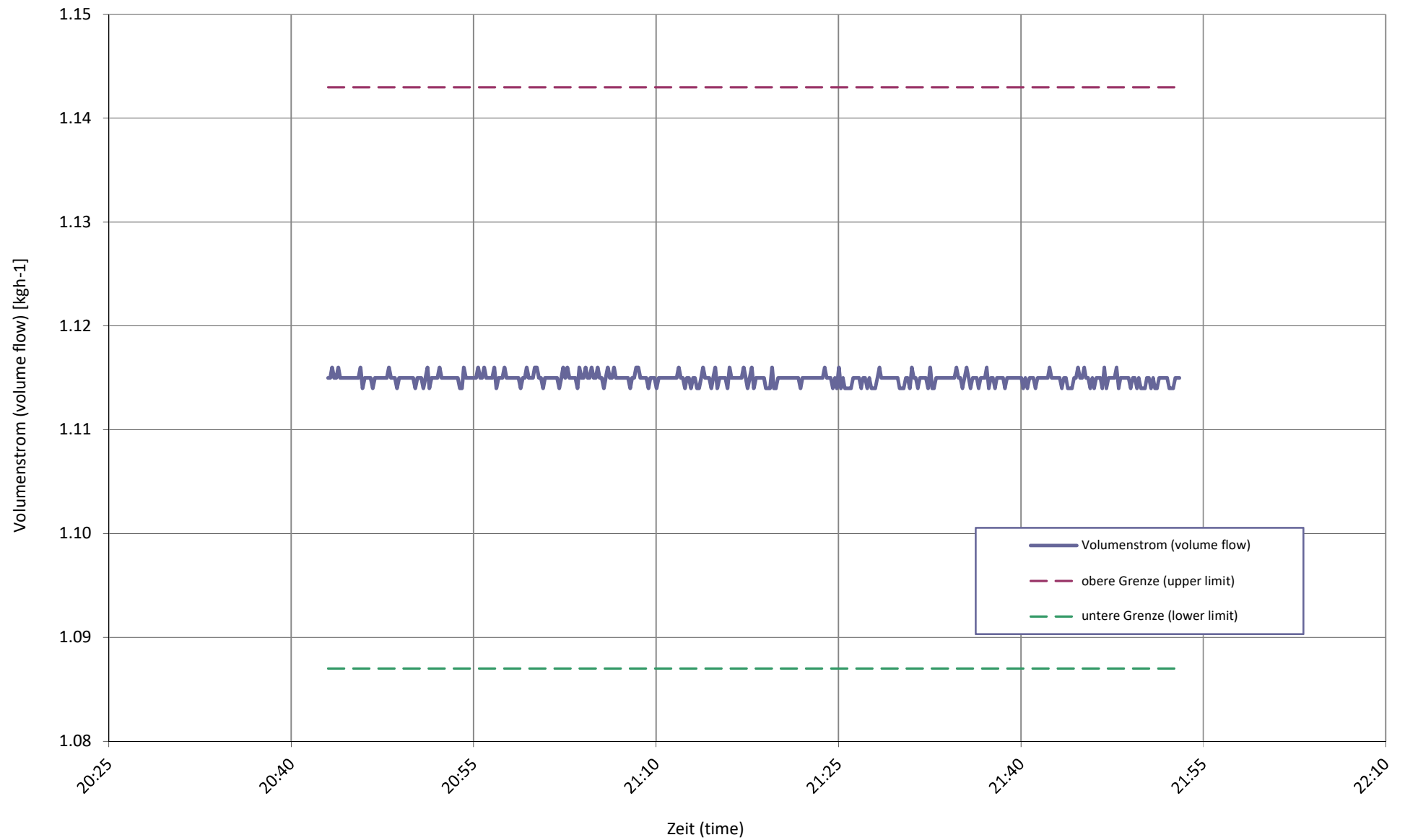


relative Luftfeuchtigkeit bei  
relative humidity at

**A7/W30-35**



Senkenmassenstrom bei  
sink mass flow at **A7/W30-35**



**Prüfbedingung**  
Test condition

**A2/Wxx-35 BAFA**

**Prüfnummer**  
Test number

**LW-458-19-71**

Messgrößen Measured variables	Einheit Unit	Mittelwert Mean value	abs. Fehler absolute error	rel. Fehler relative error
<b>1 Heizleistung</b> (heating capacity) inkl. Umwälzpumpe (included circulation pump)	W	<b>6482</b>	± 104	± 1.60%
<b>a Heizleistung</b> (heating capacity)	W	6506	± 102	
<b>b Lufteintrittstemperatur</b> (air inlet temperature)	°C	2.00	± 0.06	
<b>Luftaustrittstemperatur</b> (air outlet temperature)	°C	0.12	± 0.30	
<b>Luftdruck</b> (air pressure)	hPa	972	± 19	
<b>Relative Luftfeuchtigkeit</b> (relative humidity)	%	84.2	± 2.5	
<b>c Rücklauftemperatur</b> (water inlet temperature)	°C	29.99	± 0.04	
<b>Vorlauftemperatur</b> (water outlet temperature)	°C	35.01	± 0.05	
<b>Massenstrom</b> (mass flow)	kg h <sup>-1</sup>	1115.7	± 5.6	
<b>Hydraulischer Druckabfall</b> (hydraulic pressure drop)	kPa	-16.12	± -0.40	
<b>d Abtaudauer</b> (period of defrosting)	min	-		
<b>Heizdauer</b> (period of heating)	min	-		
<b>Relative Abtaudauer</b> (relative duration of defrosting period)	%	-		
<b>Abtauleistung</b> (defrosting output)	W	-	± -	± -
<b>e Niederdruck</b> (low pressure)	bara	-	± -	
<b>Sauggastemperatur</b> (suction gas temperature)	°C	-	± -	
<b>Hochdruck</b> (high pressure)	bara	-	± -	
<b>Heissgastemperatur</b> (hot gas temperature)	°C	-	± -	
<b>Flüssigkeitstemperatur</b> (condenser outlet temperature)	°C	-	± -	
<b>2 Wirkleistung total</b> (total power input) inkl. Umwälzpumpe (included circulation pump)	W	<b>1571</b>	± 13	± 0.82%
<b>Wirkleistung</b> (power input)	W	1599	± 12	
<b>Spannung</b> (voltage)	V	230.8	± 0.4	
<b>Stromaufnahme</b> (current consumption)	A	2.66	± 0.04	
<b>Scheinleistung</b> (apparent output)	VA	1839	± 8	
<b>Leistungsfaktor cosp</b> (power factor)	-	0.87	± 0.01	
<b>3 COP</b> (COP)	-	<b>4.127</b>	± 0.074	± 1.80%
<b>4 Umgebungstemperatur</b> (ambient temperature)	°C	19.5	± 1.5	
<b>5 Prüfdauer</b> (test duration)	hh:mm:ss	01:10:00		
<b>Prüfbeginn</b> (beginning of test)	hh:mm:ss	16:55:50	10.12.2019	2019-12-10
<b>Prüfende</b> (end of test)	hh:mm:ss	18:05:50	10.12.2019	2019-12-10

**6 Bemerkung** (remark)

- Messung wurde mit integrierter UWP durchgeführt / Measurement is carry out with internal installation pump
- Kompressorfrequenz / compressor speed = 47 Hz

**7 Prüfer** (supervisor) R. Rankwiler

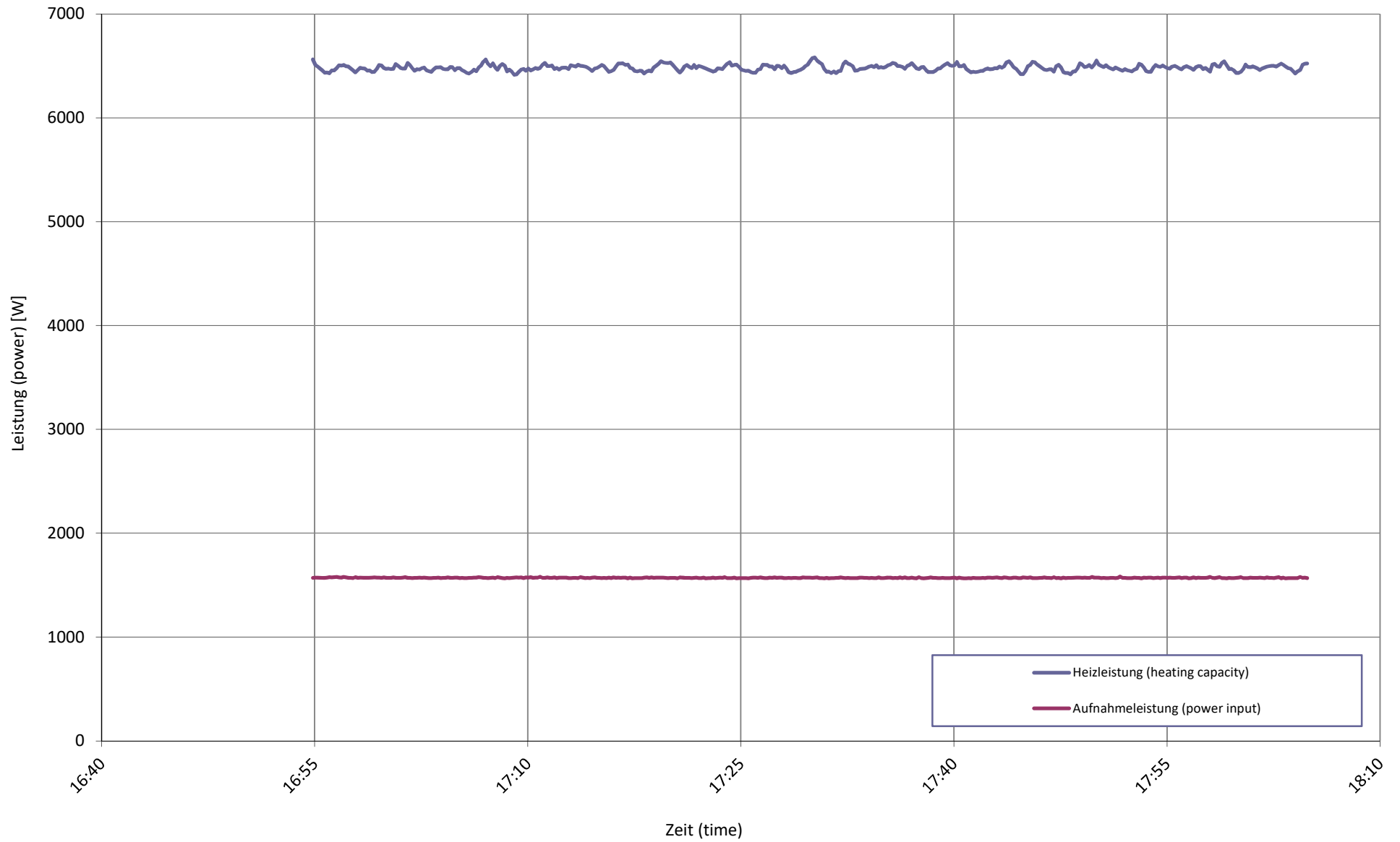
**Prüfnorm** (test standard)

EN 14511-2  
EN 14511-3  
EN 14511-4 clause 4.6  
EN 14825

passed  
passed  
passed  
passed

**Wärme- und Aufnahmeleistung bei**  
heating capacity and input power at

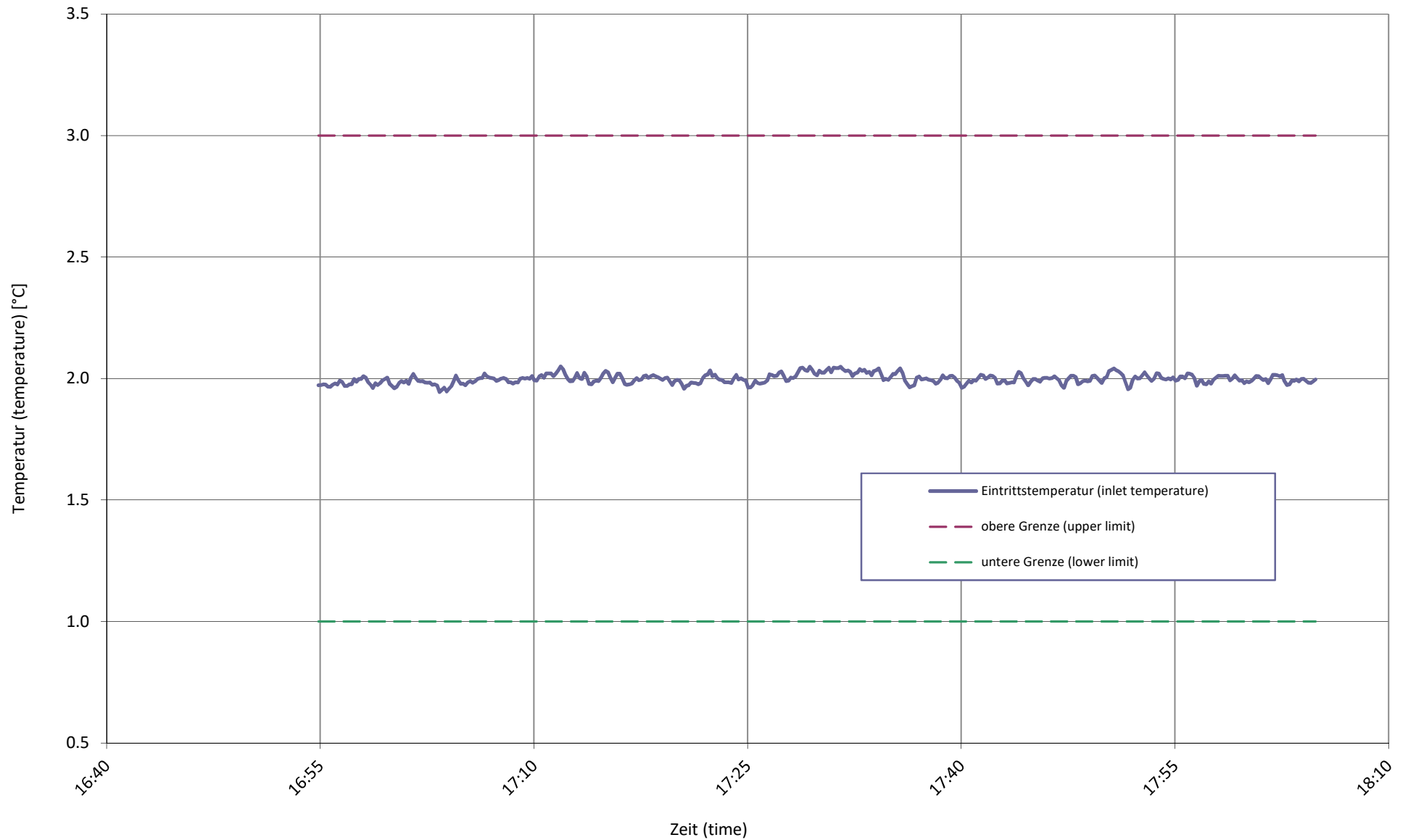
**A2/Wxx-35 BAFA**





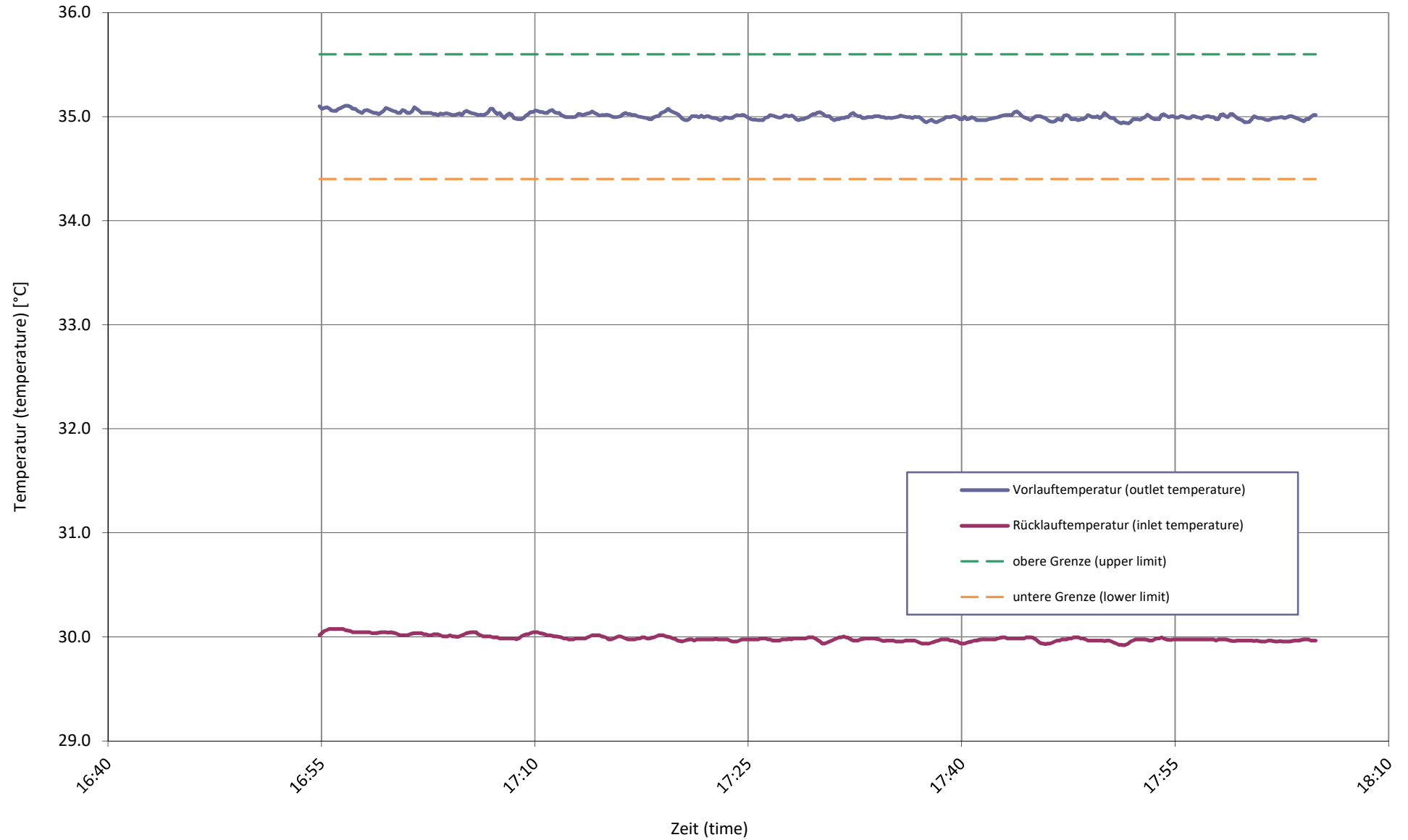
Quellentemperatur bei  
source temperature at

# A2/Wxx-35 BAFA



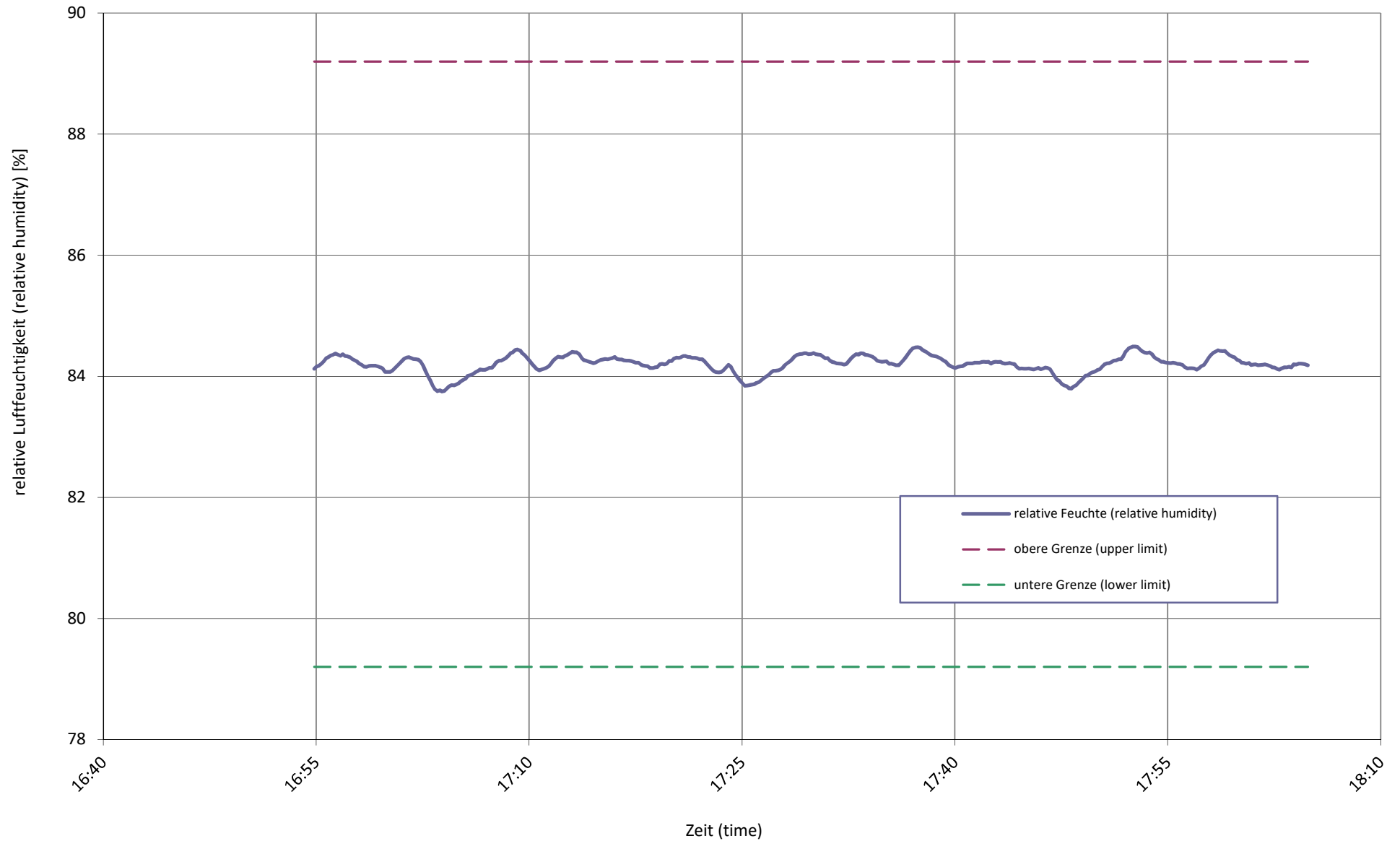
Senktemperatur bei  
sink temperature at

# A2/Wxx-35 BAFA



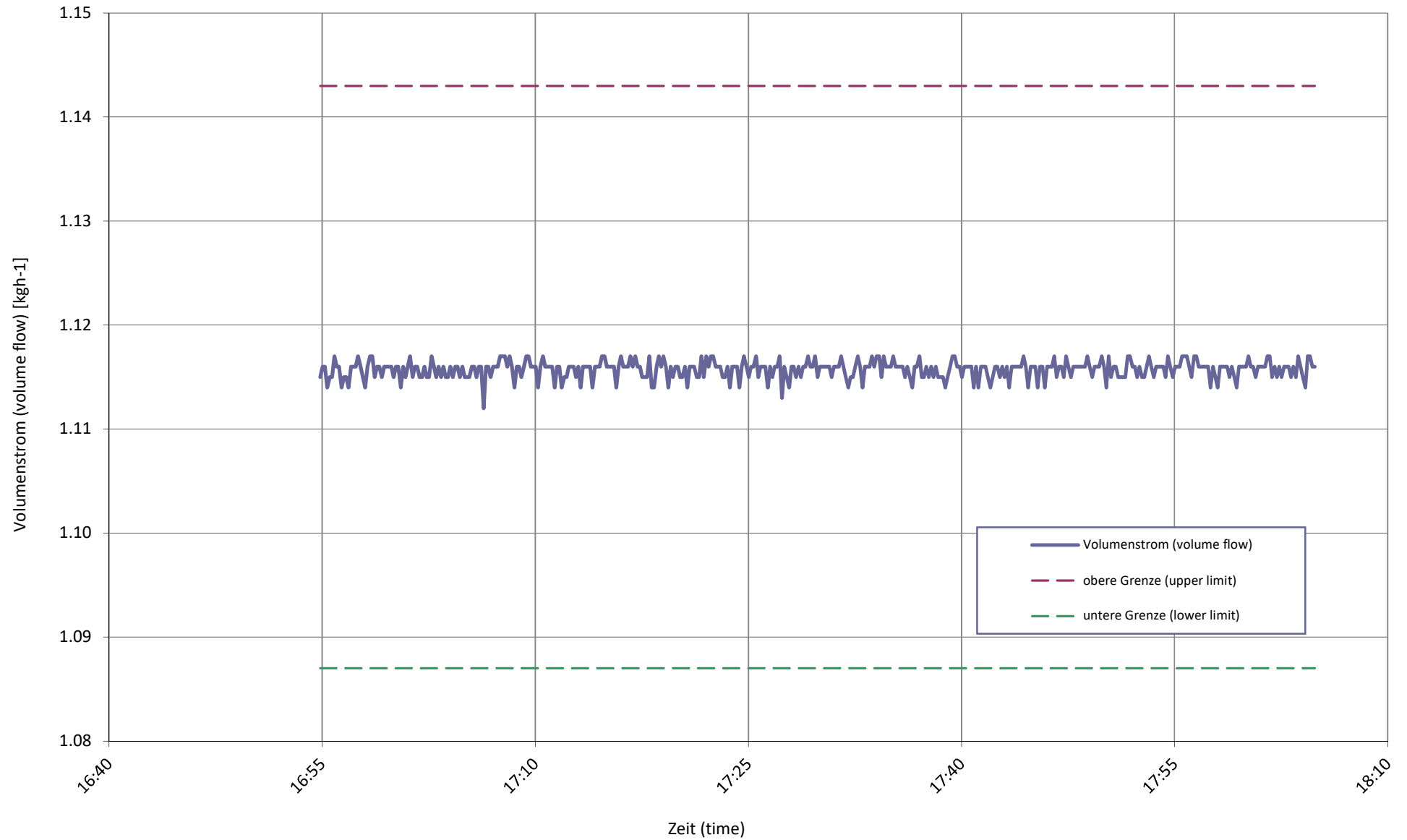
relative Luftfeuchtigkeit bei  
relative humidity at

# A2/Wxx-35 BAFA



Senkenmassenstrom bei  
sink mass flow at

# A2/Wxx-35 BAFA



**Prüfbedingung**  
Test condition

**A-7/Wxx-35 BAFA**

**Prüfnummer**  
Test number

**LW-458-19-71**

Messgrößen Measured variables	Einheit Unit	Mittelwert Mean value	abs. Fehler absolute error	rel. Fehler relative error
<b>1 Heizleistung</b> (heating capacity) inkl. Umwälzpumpe (included circulation pump)	W	<b>6544</b>	± 104	± 1.59%
<b>a Heizleistung</b> (heating capacity)	W	6568	± 103	
<b>b Lufteintrittstemperatur</b> (air inlet temperature)	°C	-6.99	± 0.05	
<b>Luftaustrittstemperatur</b> (air outlet temperature)	°C	-8.42	± 0.26	
<b>Luftdruck</b> (air pressure)	hPa	972	± 19	
<b>Relative Luftfeuchtigkeit</b> (relative humidity)	%	75.4	± 2.3	
<b>c Rücklauftemperatur</b> (water inlet temperature)	°C	29.94	± 0.04	
<b>Vorlauftemperatur</b> (water outlet temperature)	°C	35.00	± 0.05	
<b>Massenstrom</b> (mass flow)	kg h <sup>-1</sup>	1115.7	± 5.6	
<b>Hydraulischer Druckabfall</b> (hydraulic pressure drop)	kPa	-16.08	± -0.40	
<b>d Abtaudauer</b> (period of defrosting)	min	-		
<b>Heizdauer</b> (period of heating)	min	-		
<b>Relative Abtaudauer</b> (relative duration of defrosting period)	%	-		
<b>Abtauleistung</b> (defrosting output)	W	-	± -	± -
<b>e Niederdruck</b> (low pressure)	bara	-	± -	
<b>Sauggastemperatur</b> (suction gas temperature)	°C	-	± -	
<b>Hochdruck</b> (high pressure)	bara	-	± -	
<b>Heissgastemperatur</b> (hot gas temperature)	°C	-	± -	
<b>Flüssigkeitstemperatur</b> (condenser outlet temperature)	°C	-	± -	
<b>2 Wirkleistung total</b> (total power input) inkl. Umwälzpumpe (included circulation pump)	W	<b>2074</b>	± 15	± 0.73%
<b>Wirkleistung</b> (power input)	W	2102	± 14	
<b>Spannung</b> (voltage)	V	231.5	± 0.4	
<b>Stromaufnahme</b> (current consumption)	A	3.37	± 0.04	
<b>Scheinleistung</b> (apparent output)	VA	2339	± 9	
<b>Leistungsfaktor cosp</b> (power factor)	-	0.90	± 0.01	
<b>3 COP</b> (COP)	-	<b>3.156</b>	± 0.055	± 1.74%
<b>4 Umgebungstemperatur</b> (ambient temperature)	°C	19.5	± 1.5	
<b>5 Prüfdauer</b> (test duration)	hh:mm:ss	01:10:00		
<b>Prüfbeginn</b> (beginning of test)	hh:mm:ss	13:10:20	09.12.2019	2019-12-09
<b>Prüfende</b> (end of test)	hh:mm:ss	14:20:20	09.12.2019	2019-12-09

**6 Bemerkung** (remark)

- Messung wurde mit integrierter UWP durchgeführt / Measurement is carry out with internal installation pump
- Kompressorfrequenz / compressor speed = 60 Hz

**7 Prüfer** (supervisor) R. Rankwiler

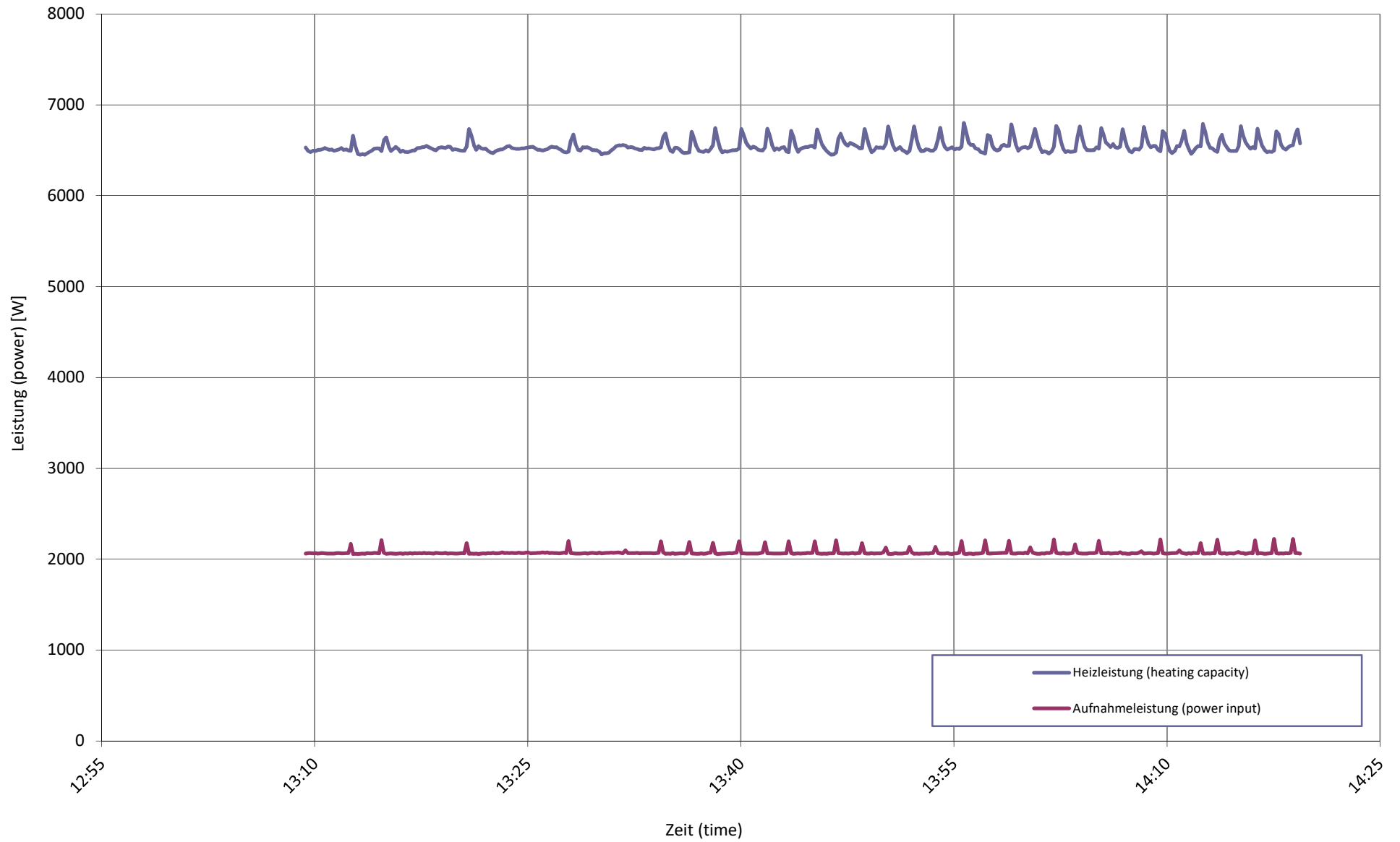
**Prüfnorm** (test standard)

EN 14511-2  
EN 14511-3  
EN 14511-4 clause 4.6  
EN 14825

passed  
passed  
passed  
passed

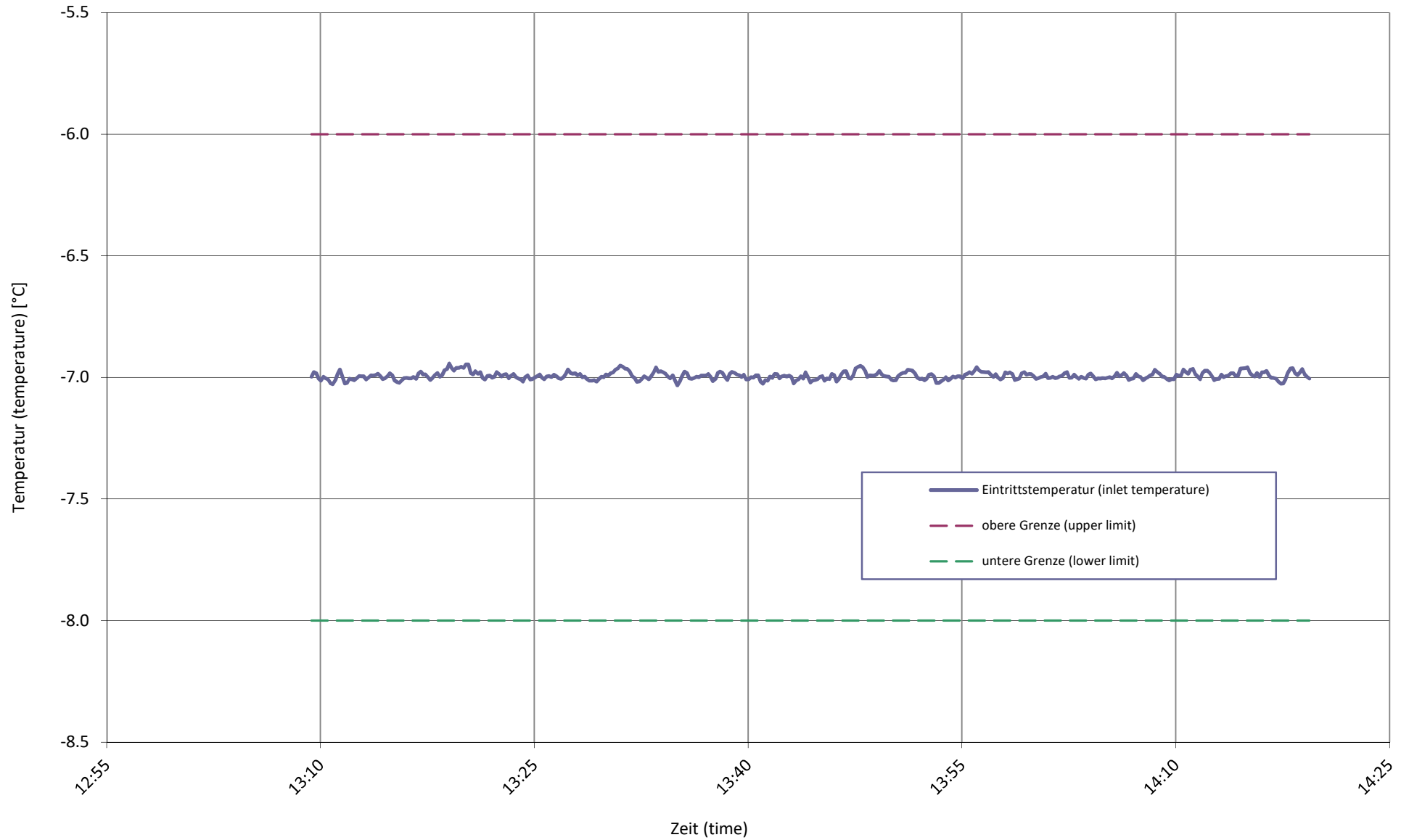
**Wärme- und Aufnahmeleistung bei**  
heating capacity and input power at

# A-7/Wxx-35 BAFA



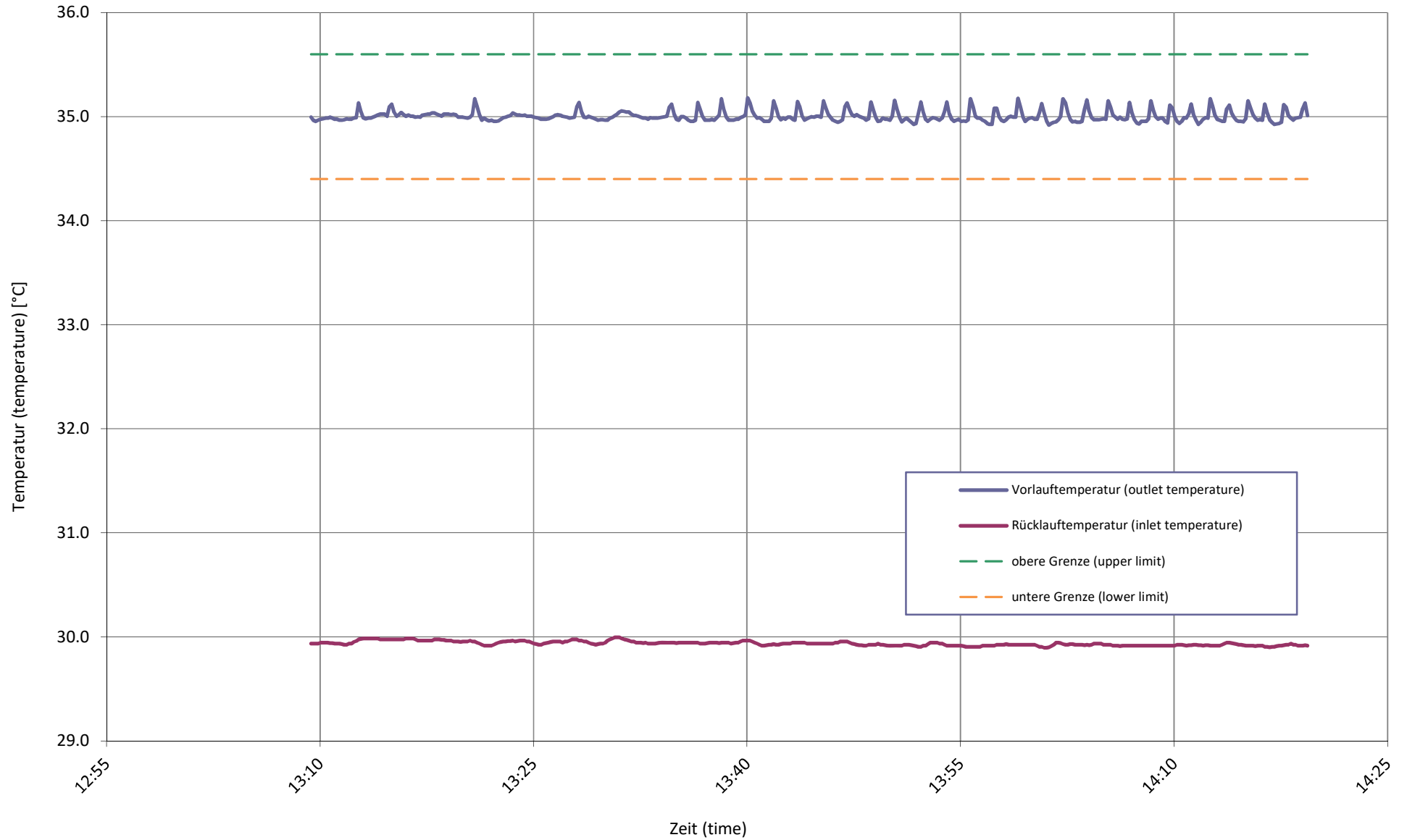
Quellentemperatur bei  
source temperature at

# A-7/Wxx-35 BAFA



Senktemperatur bei  
sink temperature at

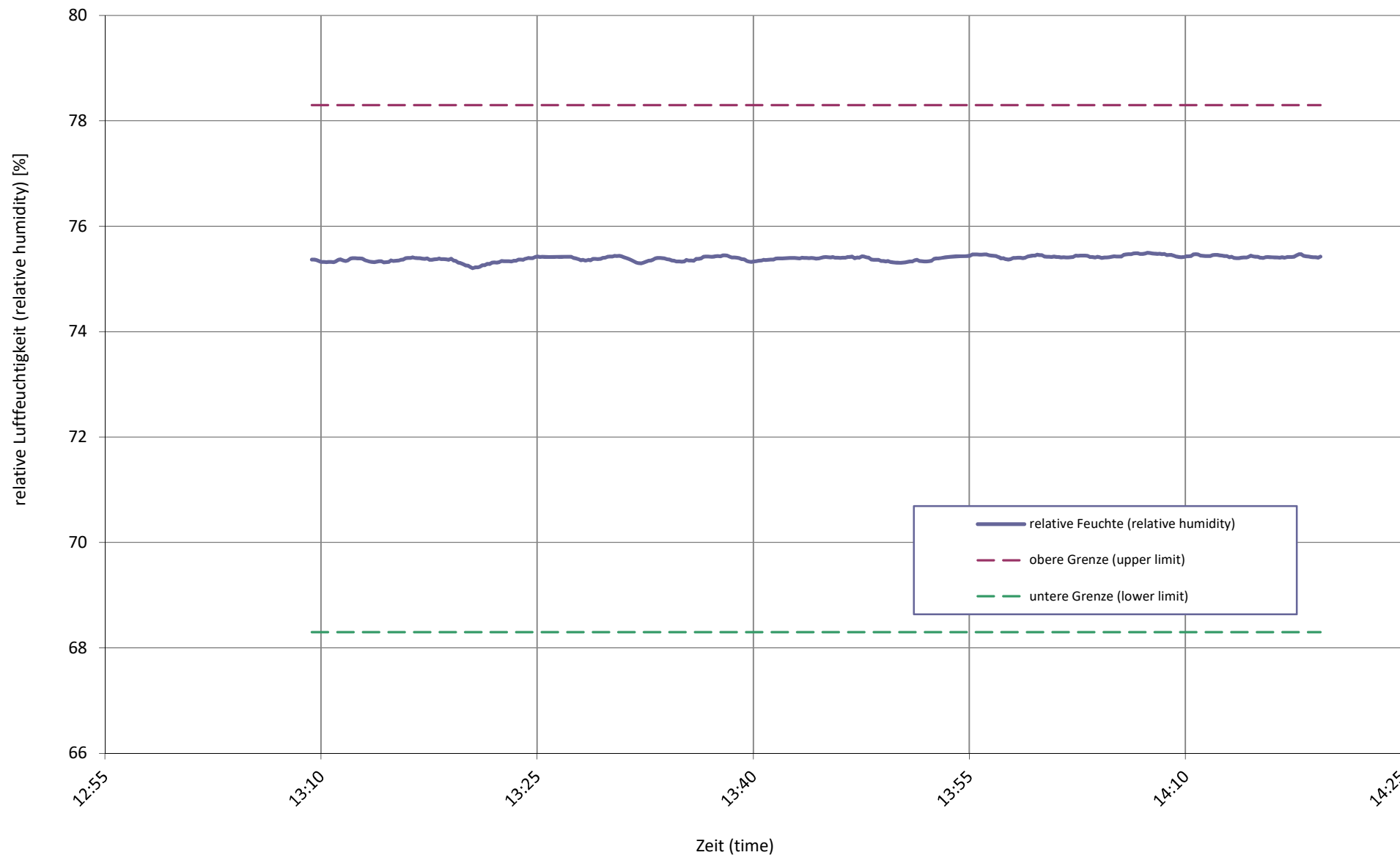
# A-7/Wxx-35 BAFA





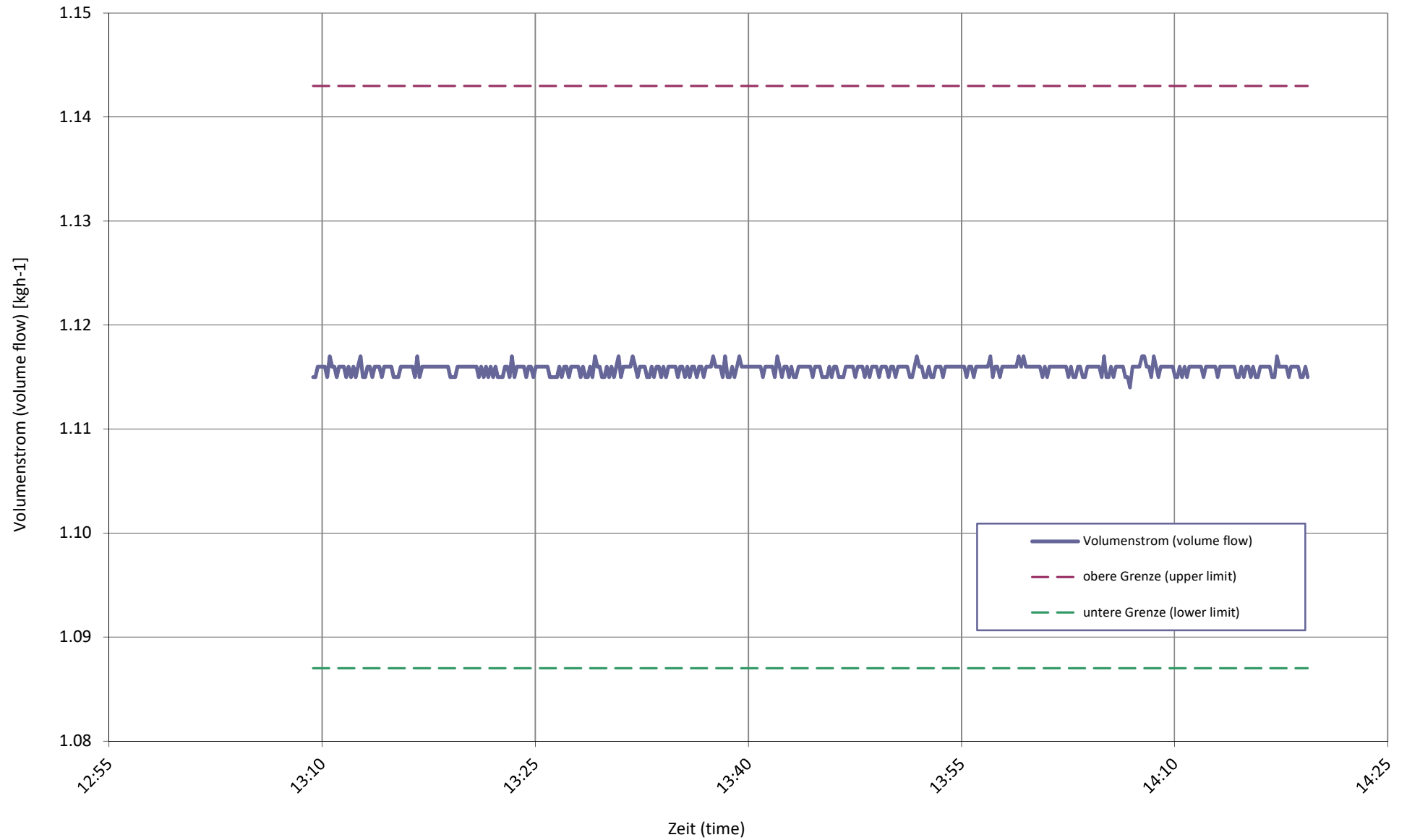
relative Luftfeuchtigkeit bei  
relative humidity at

# A-7/Wxx-35 BAFA



Senkenmassenstrom bei  
sink mass flow at

# A-7/Wxx-35 BAFA



Prüfbedingung  
Test condition

**A-15/Wxx-32.5 colder G**

Prüfnummer  
Test number

**LW-458-19-71**

Messgrößen Measured variables	Einheit Unit	Mittelwert Mean value	abs. Fehler absolute error	rel. Fehler relative error
<b>1 Heizleistung</b> (heating capacity) inkl. Umwälzpumpe (included circulation pump)	W	<b>7700</b>	± 110	± 1.43%
<b>a Heizleistung</b> (heating capacity)	W	7723	± 109	
<b>b Lufteintrittstemperatur</b> (air inlet temperature)	°C	-15.00	± 0.04	
<b>Luftaustrittstemperatur</b> (air outlet temperature)	°C	-16.30	± 0.22	
<b>Luftdruck</b> (air pressure)	hPa	972	± 19	
<b>Relative Luftfeuchtigkeit</b> (relative humidity)	%	69.4	± 2.1	
<b>c Rücklauftemperatur</b> (water inlet temperature)	°C	26.60	± 0.04	
<b>Vorlauftemperatur</b> (water outlet temperature)	°C	32.57	± 0.05	
<b>Massenstrom</b> (mass flow)	kg h <sup>-1</sup>	1115.5	± 5.6	
<b>Hydraulischer Druckabfall</b> (hydraulic pressure drop)	kPa	-15.99	± -0.40	
<b>d Abtaudauer</b> (period of defrosting)	min	-		
<b>Heizdauer</b> (period of heating)	min	-		
<b>Relative Abtaudauer</b> (relative duration of defrosting period)	%	-		
<b>Abtauleistung</b> (defrosting output)	W	-	± -	± -
<b>e Niederdruck</b> (low pressure)	bara	-	± -	
<b>Sauggastemperatur</b> (suction gas temperature)	°C	-	± -	
<b>Hochdruck</b> (high pressure)	bara	-	± -	
<b>Heissgastemperatur</b> (hot gas temperature)	°C	-	± -	
<b>Flüssigkeitstemperatur</b> (condenser outlet temperature)	°C	-	± -	
<b>2 Wirkleistung total</b> (total power input) inkl. Umwälzpumpe (included circulation pump)	W	<b>2935</b>	± 19	± 0.64%
<b>Wirkleistung</b> (power input)	W	2963	± 17	
<b>Spannung</b> (voltage)	V	233.1	± 0.4	
<b>Stromaufnahme</b> (current consumption)	A	4.59	± 0.04	
<b>Scheinleistung</b> (apparent output)	VA	3213	± 9	
<b>Leistungsfaktor cosp</b> (power factor)	-	0.92	± 0.01	
<b>3 COP</b> (COP)	-	<b>2.623</b>	± 0.041	± 1.57%
<b>4 Umgebungstemperatur</b> (ambient temperature)	°C	19.5	± 1.5	
<b>5 Prüfdauer</b> (test duration)	hh:mm:ss	01:10:00		
<b>Prüfbeginn</b> (beginning of test)	hh:mm:ss	10:07:40	09.12.2019	2019-12-09
<b>Prüfende</b> (end of test)	hh:mm:ss	11:17:40	09.12.2019	2019-12-09

**6 Bemerkung** (remark)

- Messung wurde mit integrierter UWP durchgeführt / Measurement is carry out with internal installation pump
- Kompressorfrequenz / compressor speed = 84 Hz

**7 Prüfer** (supervisor) R. Rankwiler

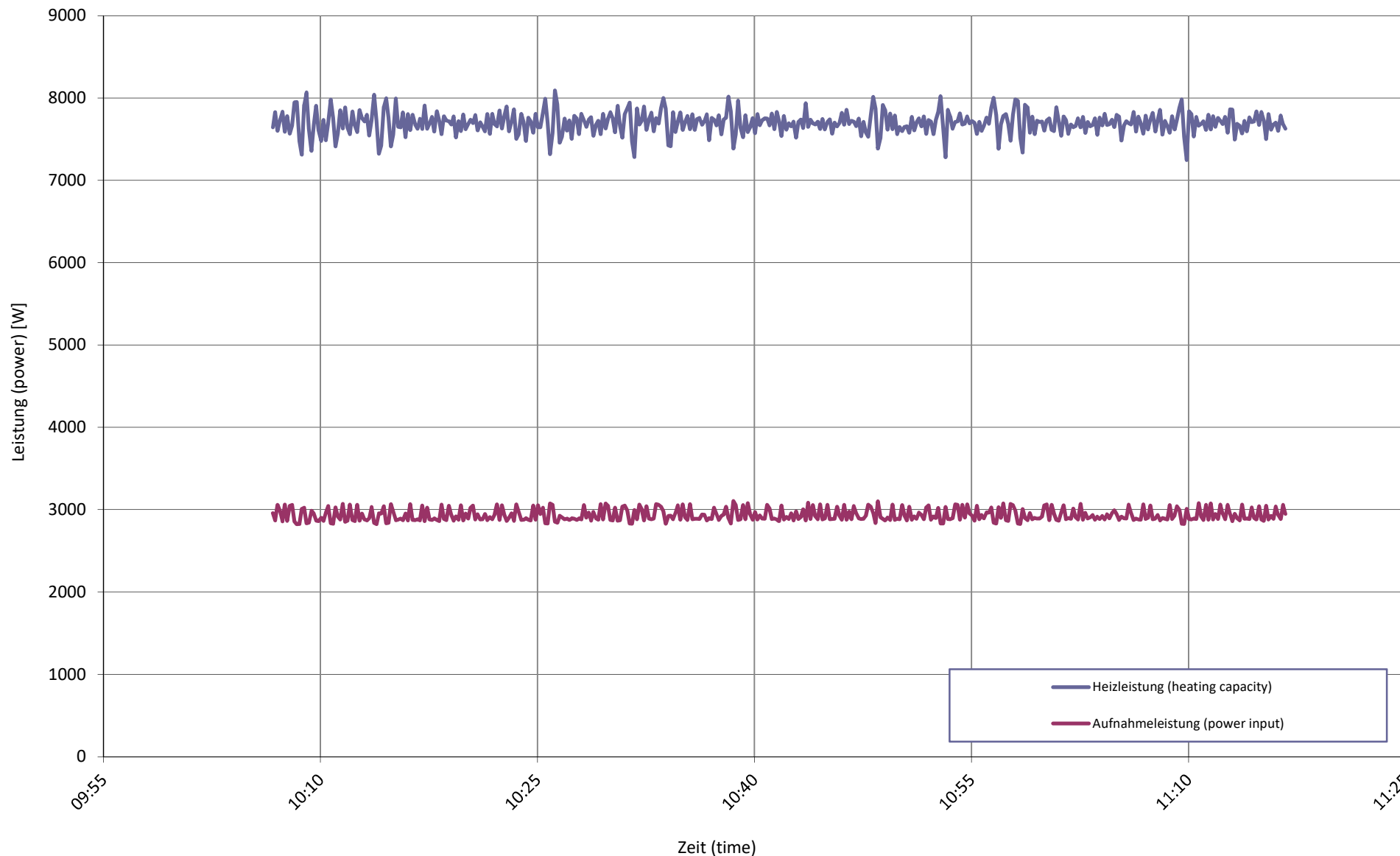
**Prüfnorm** (test standard)

EN 14511-2  
EN 14511-3  
EN 14511-4 clause 4.6  
EN 14825

passed  
passed  
passed  
passed

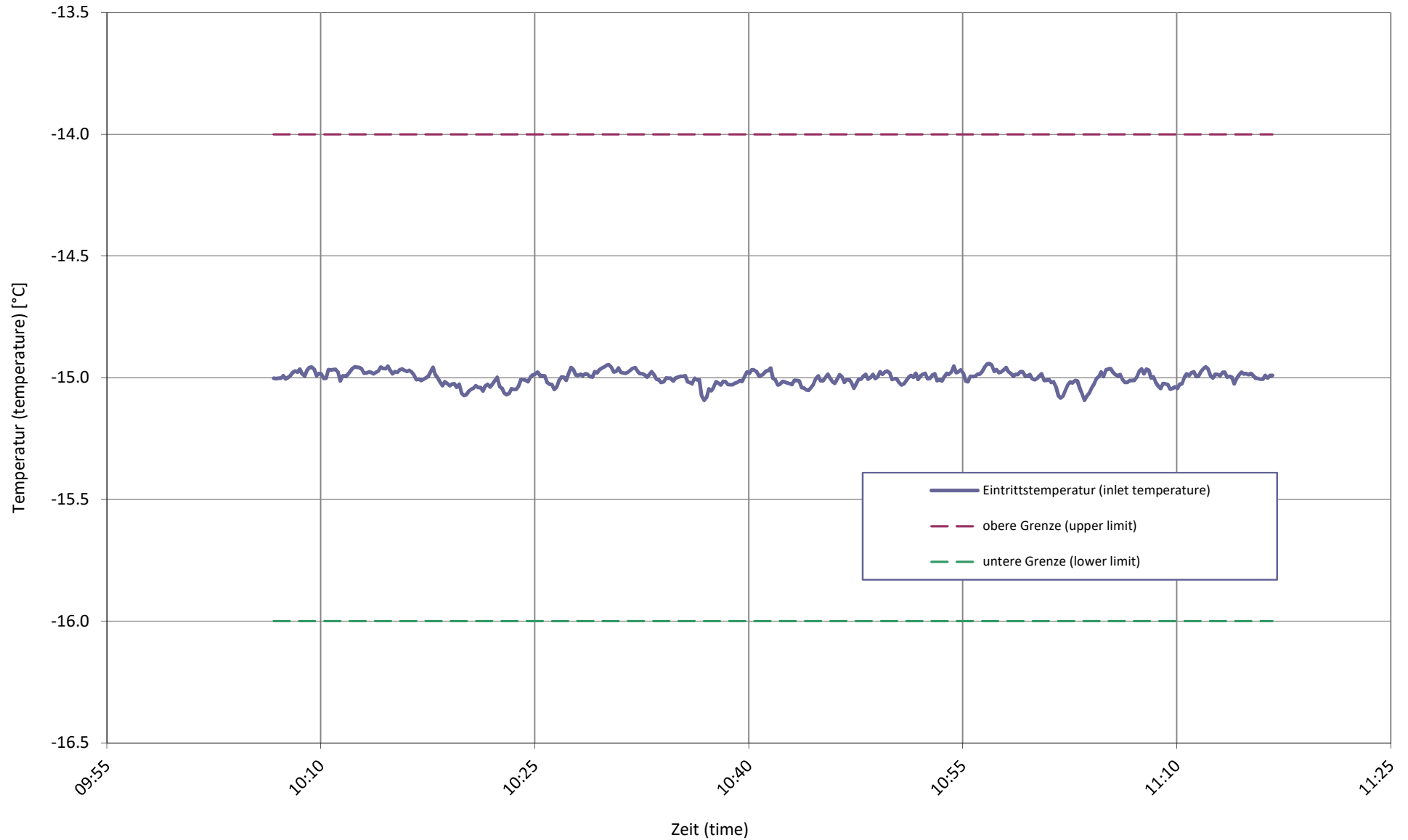
**Wärme- und Aufnahmeleistung bei**  
heating capacity and input power at

**A-15/Wxx-32.5 colder G**



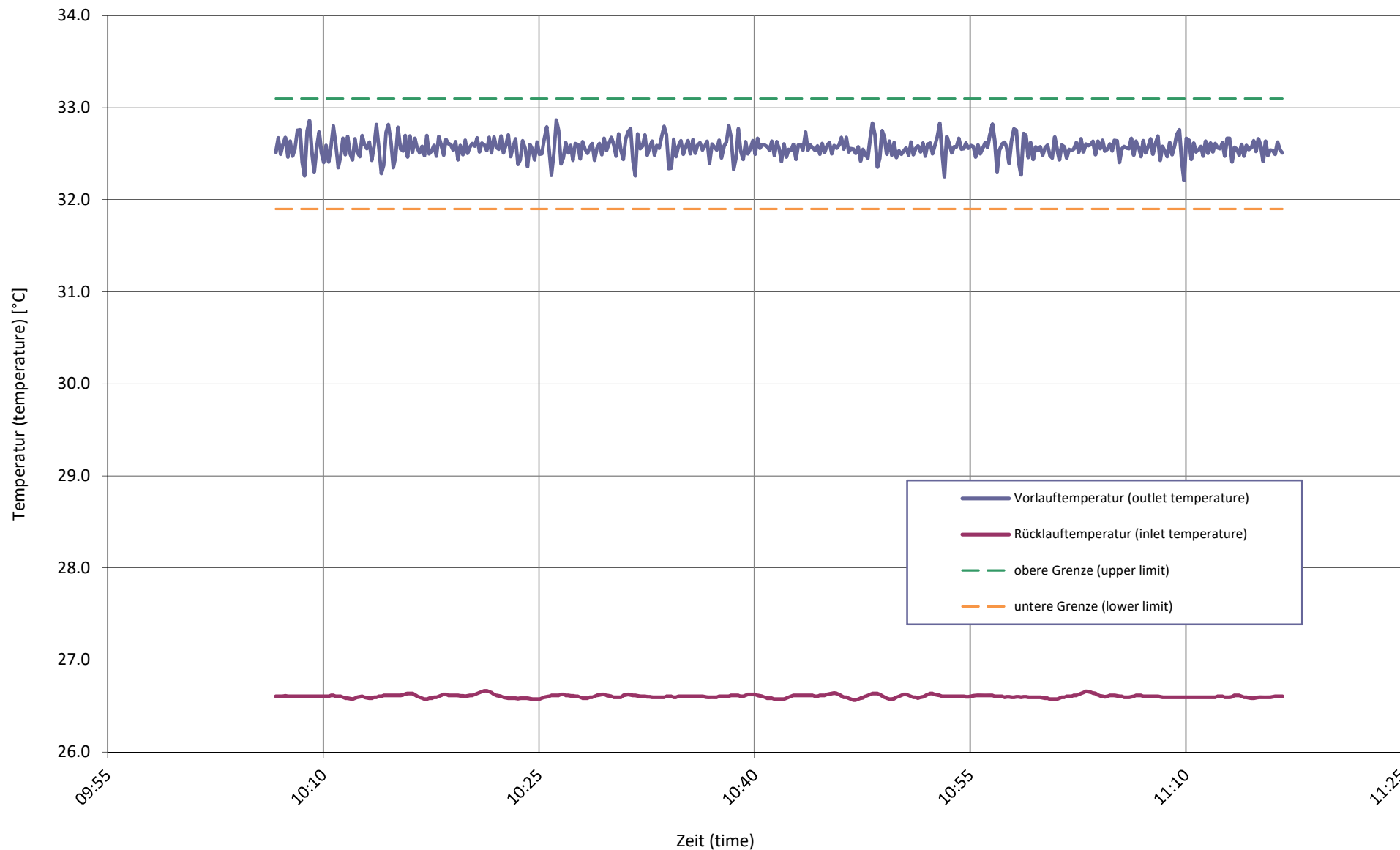
Quellentemperatur bei  
source temperature at

# A-15/Wxx-32.5 colder G



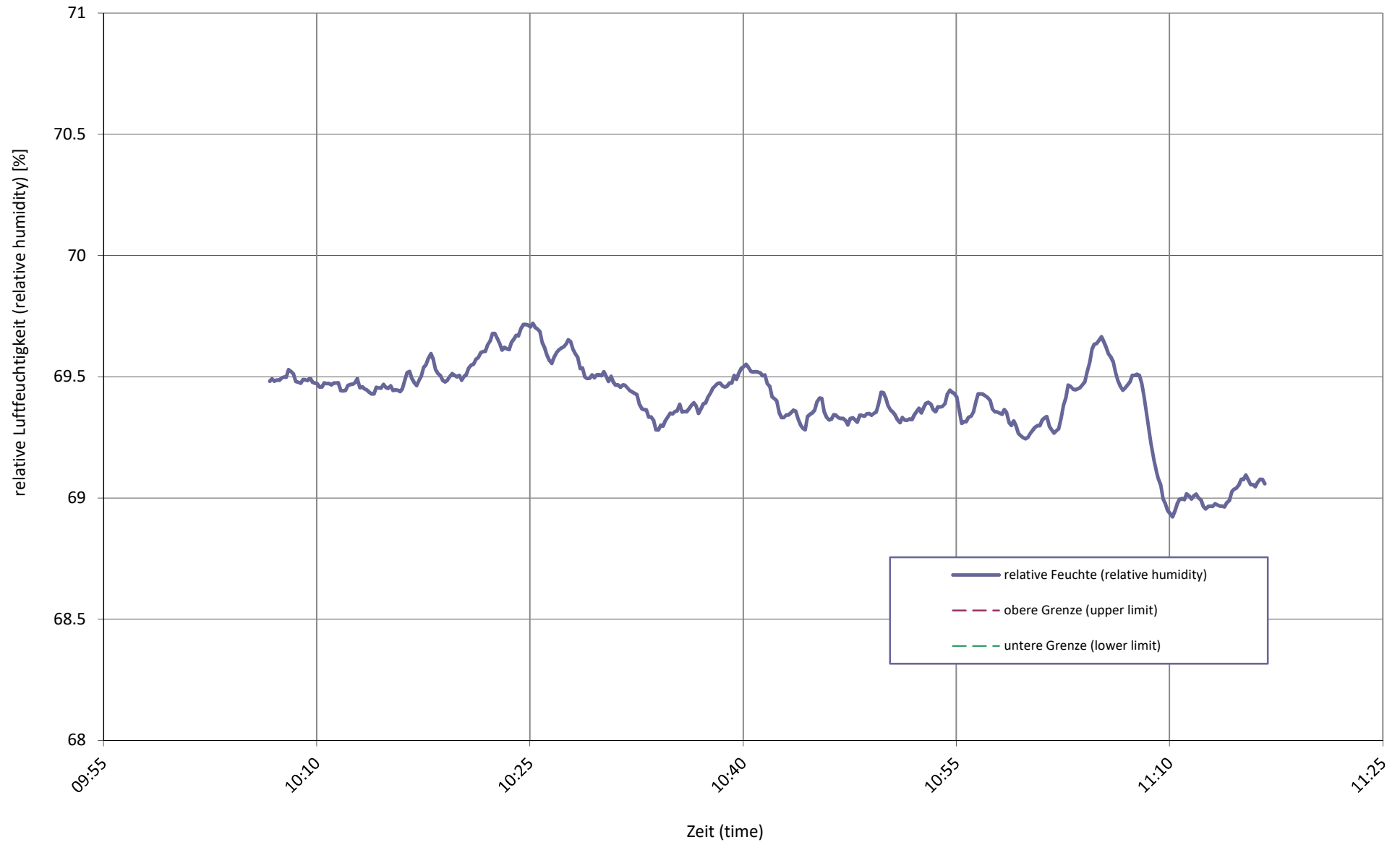
Senktemperatur bei  
sink temperature at

# A-15/Wxx-32.5 colder G



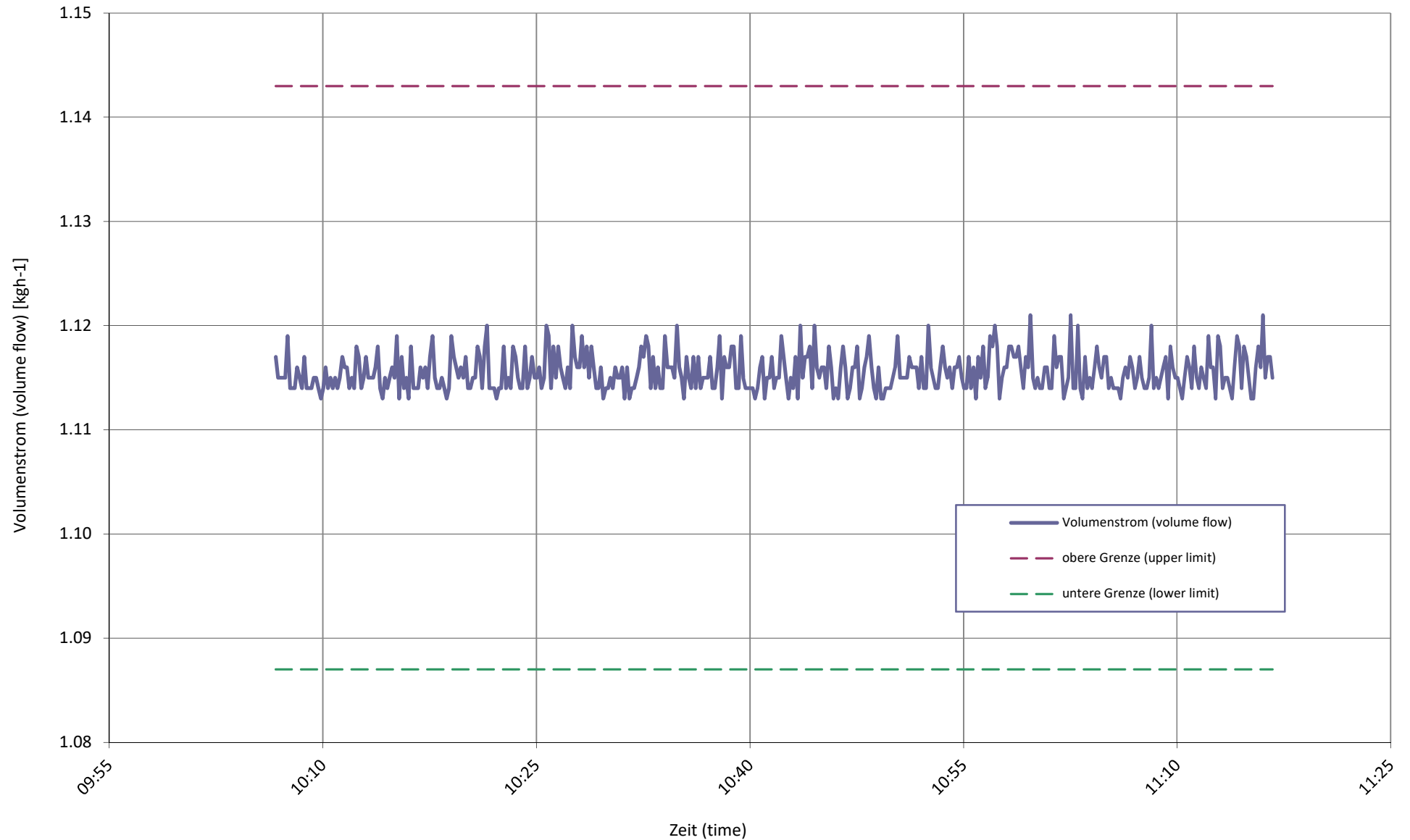
relative Luftfeuchtigkeit bei  
relative humidity at

# A-15/Wxx-32.5 colder G



Senkenmassenstrom bei  
sink mass flow at

# A-15/Wxx-32.5 colder G





**Prüfbedingung**  
Test condition

**A-18/Wxx-33.6 Tbiv colder**

**Prüfnummer**  
Test number

**LW-458-19-71**

Messgrößen Measured variables	Einheit Unit	Mittelwert Mean value	abs. Fehler absolute error	rel. Fehler relative error
<b>1 Heizleistung</b> (heating capacity) inkl. Umwälzpumpe (included circulation pump)	W	<b>8357</b>	± 114	± 1.36%
<b>a Heizleistung</b> (heating capacity)	W	8380	± 113	
<b>b Lufteintrittstemperatur</b> (air inlet temperature)	°C	-18.00	± 0.04	
<b>Luftaustrittstemperatur</b> (air outlet temperature)	°C	-19.16	± 0.20	
<b>Luftdruck</b> (air pressure)	hPa	972	± 19	
<b>Relative Luftfeuchtigkeit</b> (relative humidity)	%	72.4	± 2.2	
<b>c Rücklauftemperatur</b> (water inlet temperature)	°C	27.13	± 0.04	
<b>Vorlauftemperatur</b> (water outlet temperature)	°C	33.60	± 0.05	
<b>Massenstrom</b> (mass flow)	kg h <sup>-1</sup>	1115.1	± 5.6	
<b>Hydraulischer Druckabfall</b> (hydraulic pressure drop)	kPa	-16.00	± -0.40	
<b>d Abtaudauer</b> (period of defrosting)	min	-		
<b>Heizdauer</b> (period of heating)	min	-		
<b>Relative Abtaudauer</b> (relative duration of defrosting period)	%	-		
<b>Abtauleistung</b> (defrosting output)	W	-	± -	± -
<b>e Niederdruck</b> (low pressure)	bara	-	± -	
<b>Sauggastemperatur</b> (suction gas temperature)	°C	-	± -	
<b>Hochdruck</b> (high pressure)	bara	-	± -	
<b>Heissgastemperatur</b> (hot gas temperature)	°C	-	± -	
<b>Flüssigkeitstemperatur</b> (condenser outlet temperature)	°C	-	± -	
<b>2 Wirkleistung total</b> (total power input) inkl. Umwälzpumpe (included circulation pump)	W	<b>3498</b>	± 60	± 1.71%
<b>Wirkleistung</b> (power input)	W	3526	± 59	
<b>Spannung</b> (voltage)	V	232.8	± 0.4	
<b>Stromaufnahme</b> (current consumption)	A	5.44	± 0.26	
<b>Scheinleistung</b> (apparent output)	VA	3801	± 56	
<b>Leistungsfaktor cosp</b> (power factor)	-	0.93	± 0.01	
<b>3 COP</b> (COP)	-	<b>2.389</b>	± 0.052	± 2.19%
<b>4 Umgebungstemperatur</b> (ambient temperature)	°C	19.4	± 1.5	
<b>5 Prüfdauer</b> (test duration)	hh:mm:ss	01:10:00		
<b>Prüfbeginn</b> (beginning of test)	hh:mm:ss	16:36:00	07.12.2019	2019-12-07
<b>Prüfende</b> (end of test)	hh:mm:ss	17:46:00	07.12.2019	2019-12-07

**6 Bemerkung** (remark)

- Messung wurde mit integrierter UWP durchgeführt / Measurement is carry out with internal installation pump
- Kompressorfrequenz / compressor speed = 95 Hz

**7 Prüfer** (supervisor) R. Rankwiler

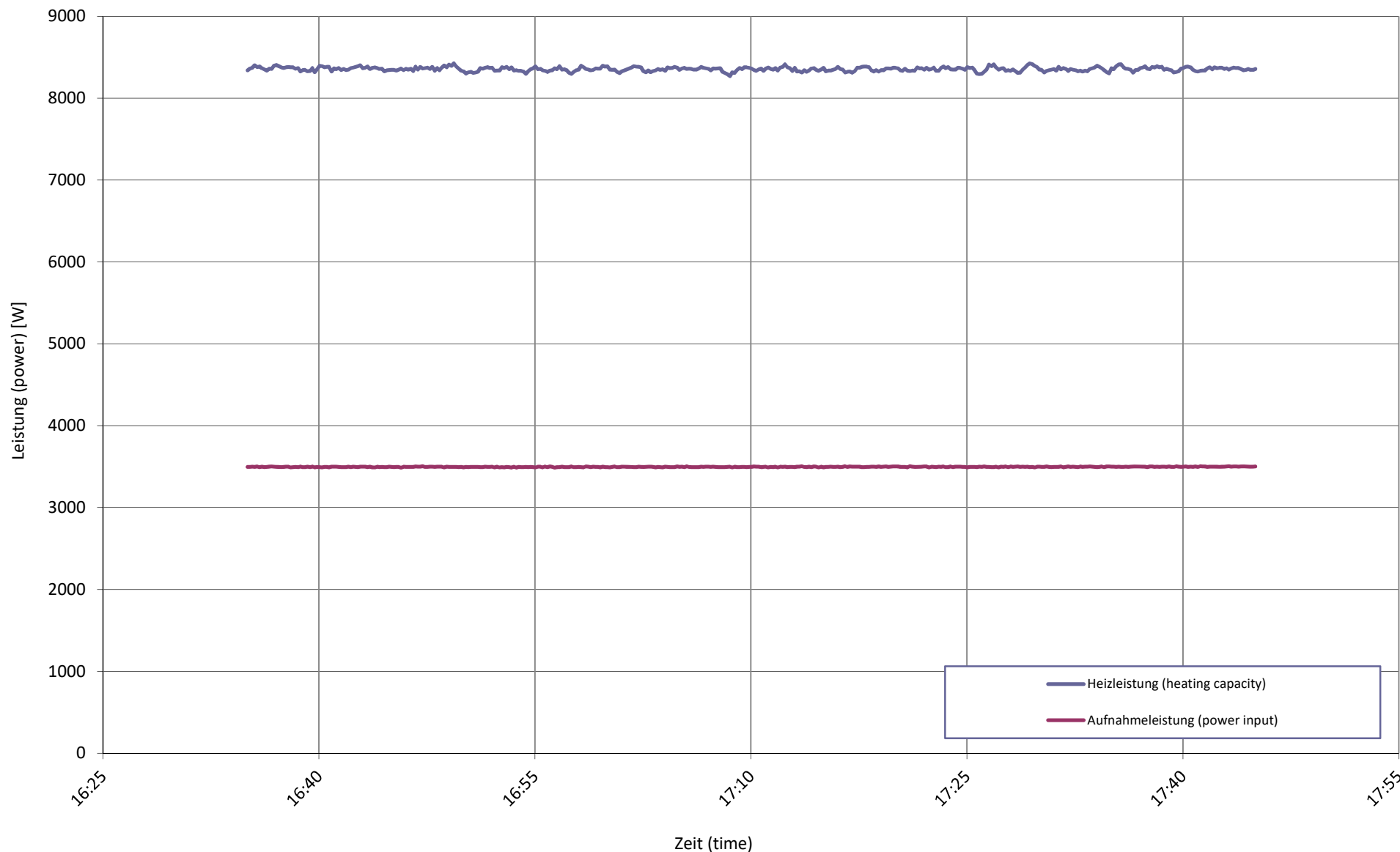
**Prüfnorm** (test standard)

EN 14511-2  
EN 14511-3  
EN 14511-4 clause 4.6  
EN 14825

passed  
passed  
passed  
passed

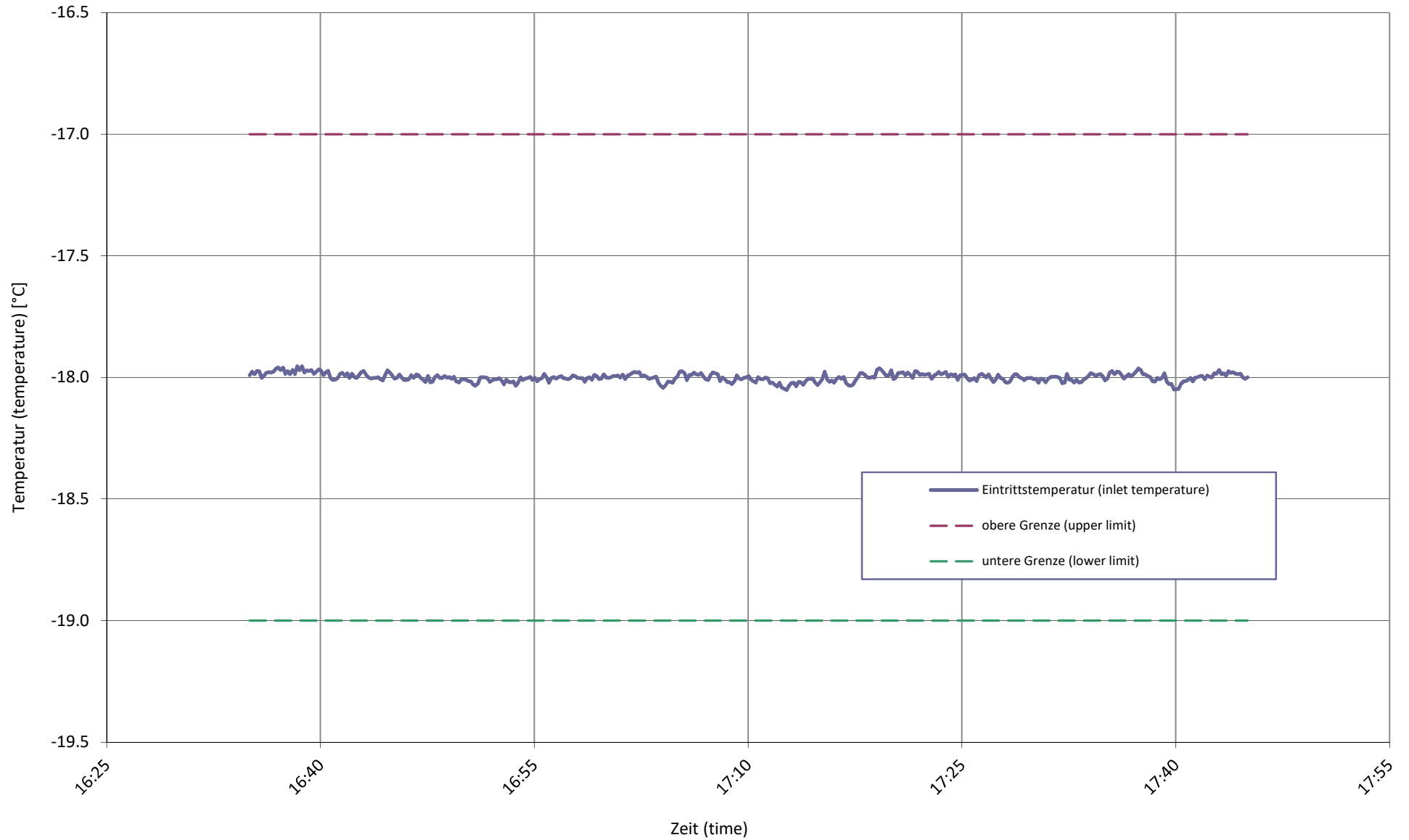
**Wärme- und Aufnahmeleistung bei**  
heating capacity and input power at

# A-18/Wxx-33.6 Tbiv colder



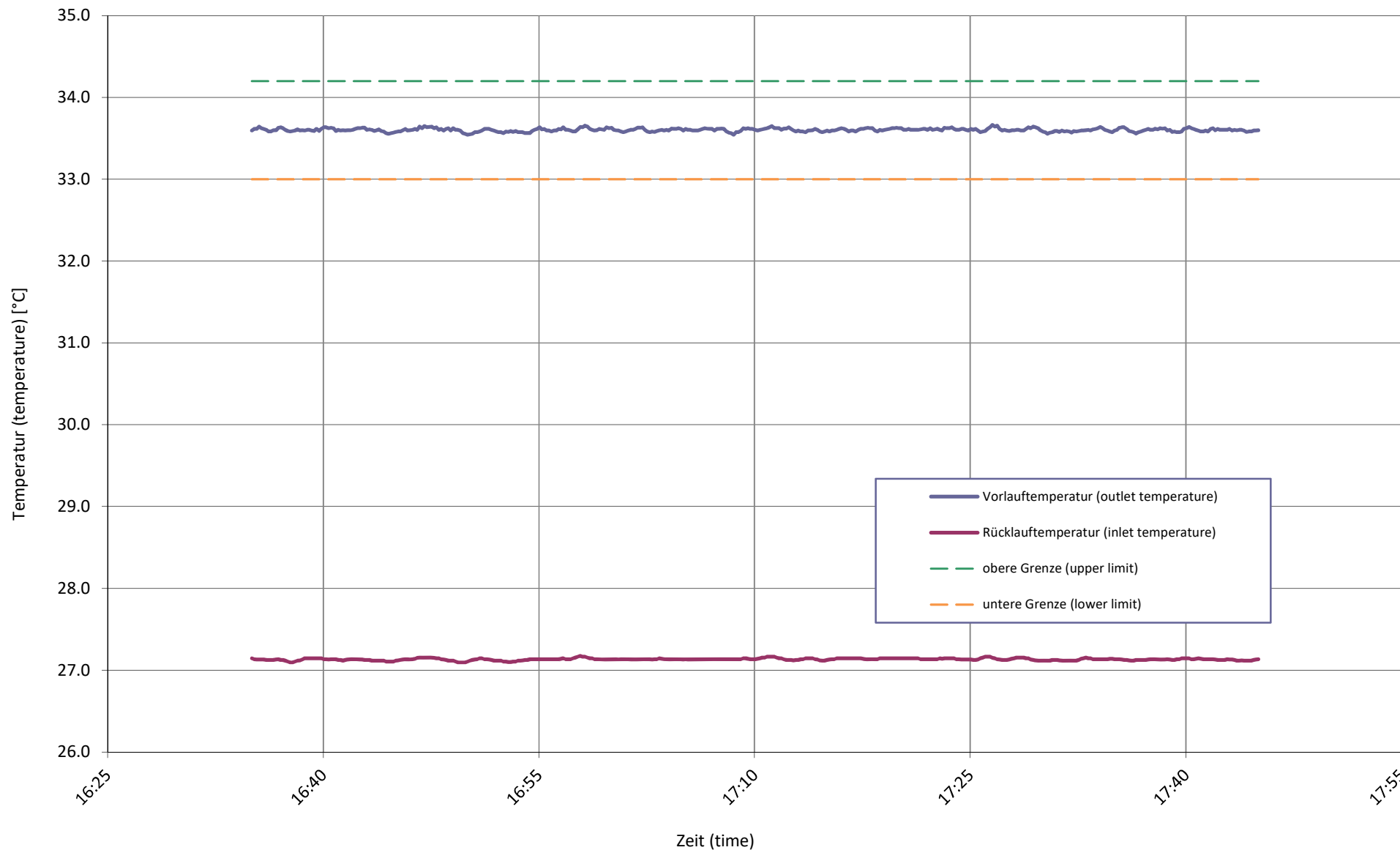
Quellentemperatur bei  
source temperature at

# A-18/Wxx-33.6 Tbiv colder



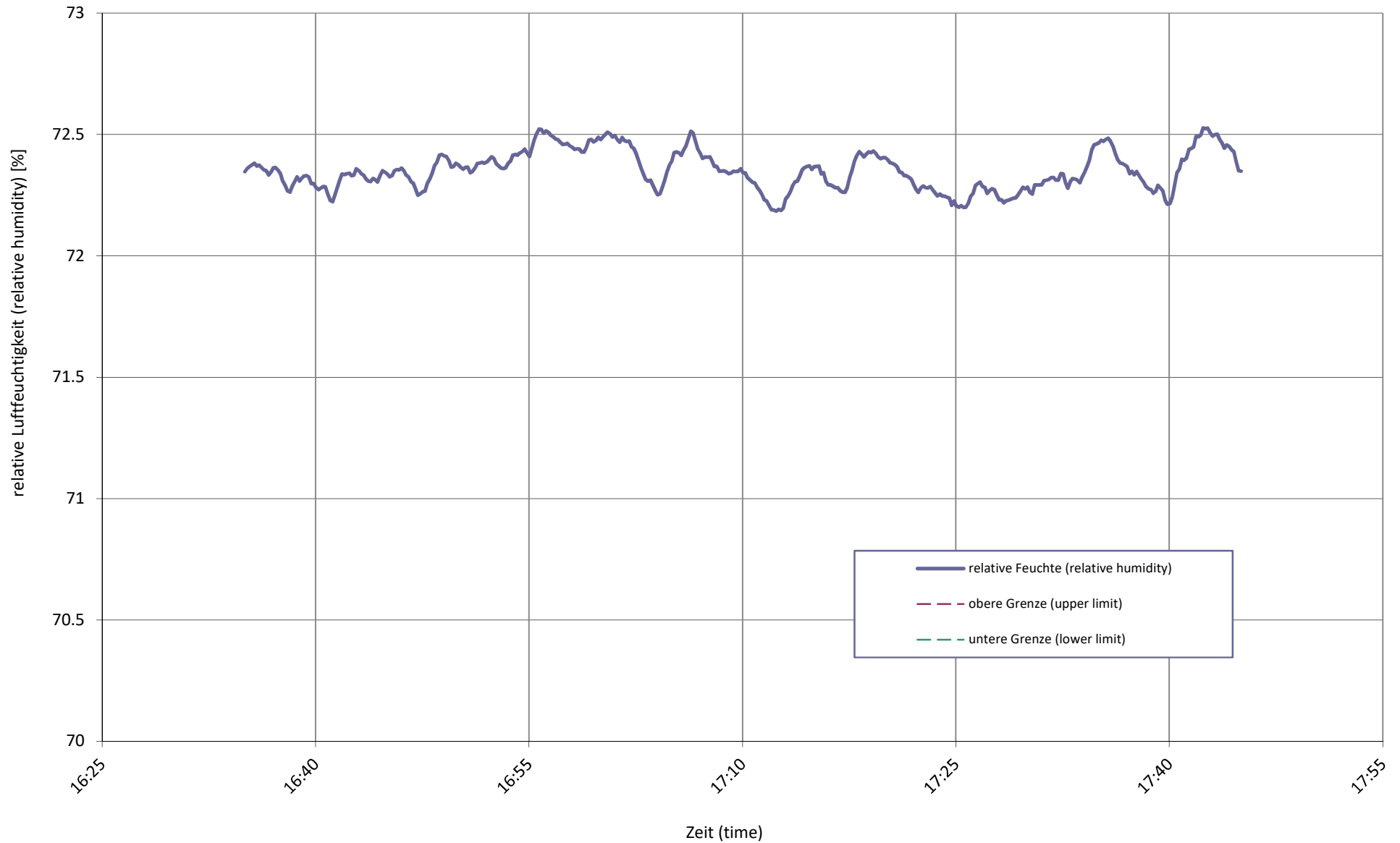
Senktemperatur bei  
sink temperature at

# A-18/Wxx-33.6 Tbiv colder



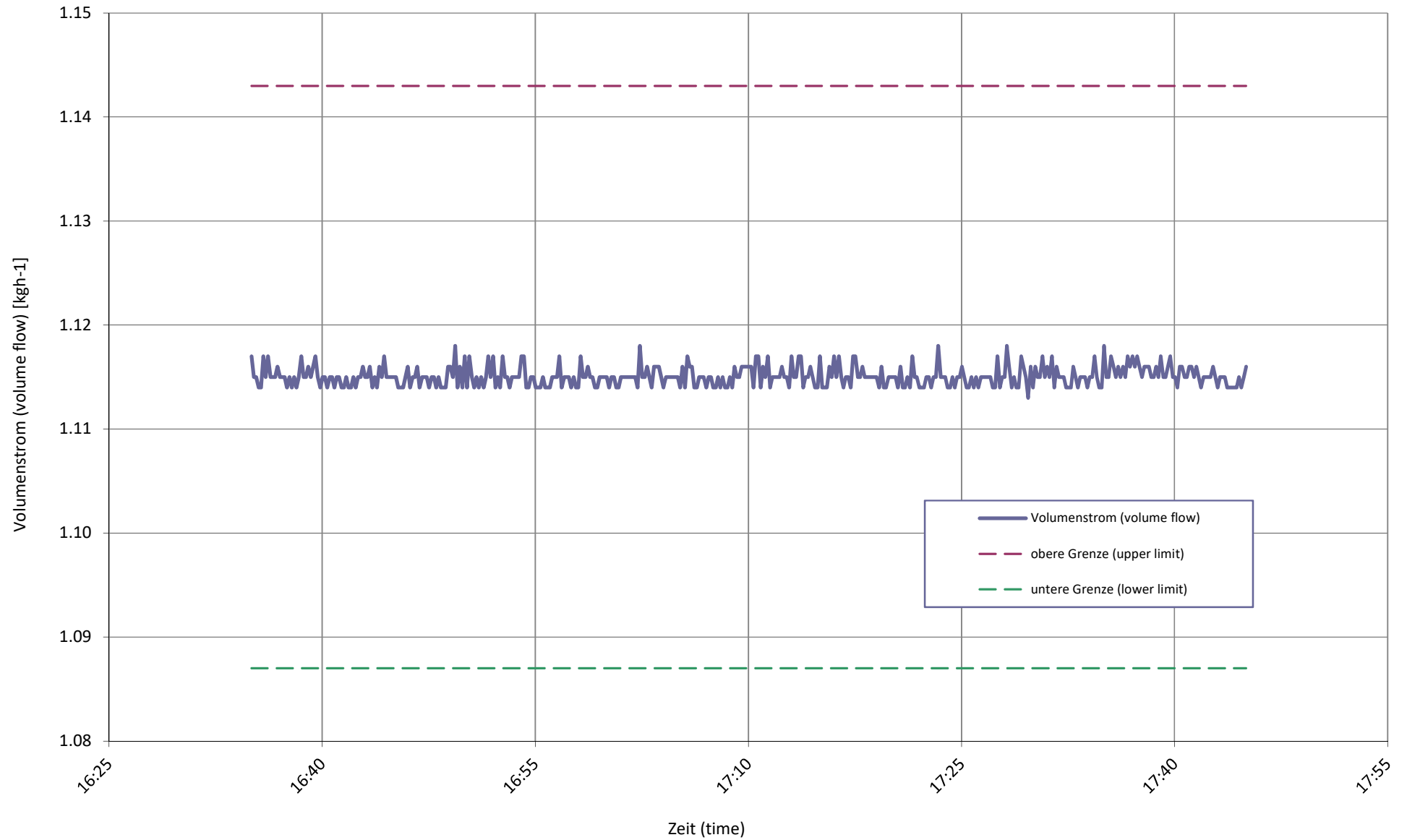
relative Luftfeuchtigkeit bei  
relative humidity at

# A-18/Wxx-33.6 Tziv colder



Senkenmassenstrom bei  
sink mass flow at

# A-18/Wxx-33.6 Tziv colder



**Prüfbedingung**  
Test condition

**A-22/Wxx-35 colder E**

**Prüfnummer**  
Test number

**LW-458-19-71**

Messgrößen Measured variables	Einheit Unit	Mittelwert Mean value	abs. Fehler absolute error	rel. Fehler relative error
<b>1 Heizleistung</b> (heating capacity) inkl. Umwälzpumpe (included circulation pump)	W	<b>7465</b>	± 109	± 1.46%
<b>a Heizleistung</b> (heating capacity)	W	7489	± 108	
<b>b Lufteintrittstemperatur</b> (air inlet temperature)	°C	-21.97	± 0.04	
<b>Luftaustrittstemperatur</b> (air outlet temperature)	°C	-22.92	± 0.19	
<b>Luftdruck</b> (air pressure)	hPa	972	± 19	
<b>Relative Luftfeuchtigkeit</b> (relative humidity)	%	70.9	± 2.1	
<b>c Rücklauftemperatur</b> (water inlet temperature)	°C	29.23	± 0.04	
<b>Vorlauftemperatur</b> (water outlet temperature)	°C	35.01	± 0.05	
<b>Massenstrom</b> (mass flow)	kg h <sup>-1</sup>	1115.5	± 5.6	
<b>Hydraulischer Druckabfall</b> (hydraulic pressure drop)	kPa	-15.93	± -0.40	
<b>d Abtaudauer</b> (period of defrosting)	min	-		
<b>Heizdauer</b> (period of heating)	min	-		
<b>Relative Abtaudauer</b> (relative duration of defrosting period)	%	-		
<b>Abtauleistung</b> (defrosting output)	W	-	± -	± -
<b>e Niederdruck</b> (low pressure)	bara	-	± -	
<b>Sauggastemperatur</b> (suction gas temperature)	°C	-	± -	
<b>Hochdruck</b> (high pressure)	bara	-	± -	
<b>Heissgastemperatur</b> (hot gas temperature)	°C	-	± -	
<b>Flüssigkeitstemperatur</b> (condenser outlet temperature)	°C	-	± -	
<b>2 Wirkleistung total</b> (total power input) inkl. Umwälzpumpe (included circulation pump)	W	<b>3557</b>	± 60	± 1.69%
<b>Wirkleistung</b> (power input)	W	3585	± 59	
<b>Spannung</b> (voltage)	V	233.8	± 0.4	
<b>Stromaufnahme</b> (current consumption)	A	5.51	± 0.26	
<b>Scheinleistung</b> (apparent output)	VA	3868	± 56	
<b>Leistungsfaktor cosp</b> (power factor)	-	0.93	± 0.01	
<b>3 COP</b> (COP)	-	<b>2.099</b>	± 0.047	± 2.23%
<b>4 Umgebungstemperatur</b> (ambient temperature)	°C	19.4	± 1.5	
<b>5 Prüfdauer</b> (test duration)	hh:mm:ss	01:10:00		
<b>Prüfbeginn</b> (beginning of test)	hh:mm:ss	11:27:00	08.12.2019	2019-12-08
<b>Prüfende</b> (end of test)	hh:mm:ss	12:37:00	08.12.2019	2019-12-08

**6 Bemerkung** (remark)

- Messung wurde mit integrierter UWP durchgeführt / Measurement is carry out with internal installation pump
- Kompressorfrequenz / compressor speed = 95 Hz

**7 Prüfer** (supervisor) R. Rankwiler

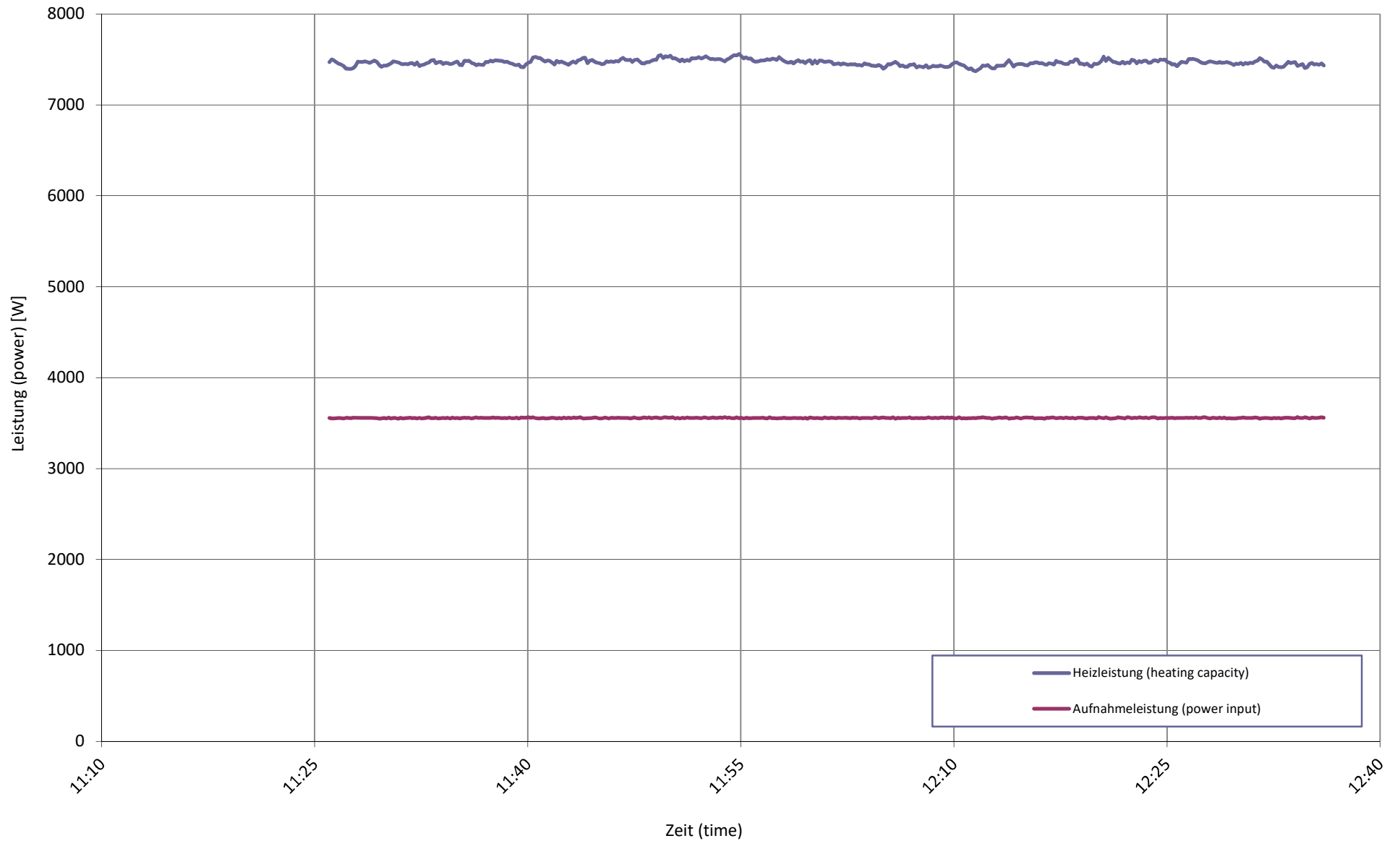
**Prüfnorm** (test standard)

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EN 14511-3  
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**Wärme- und Aufnahmeleistung bei**  
heating capacity and input power at

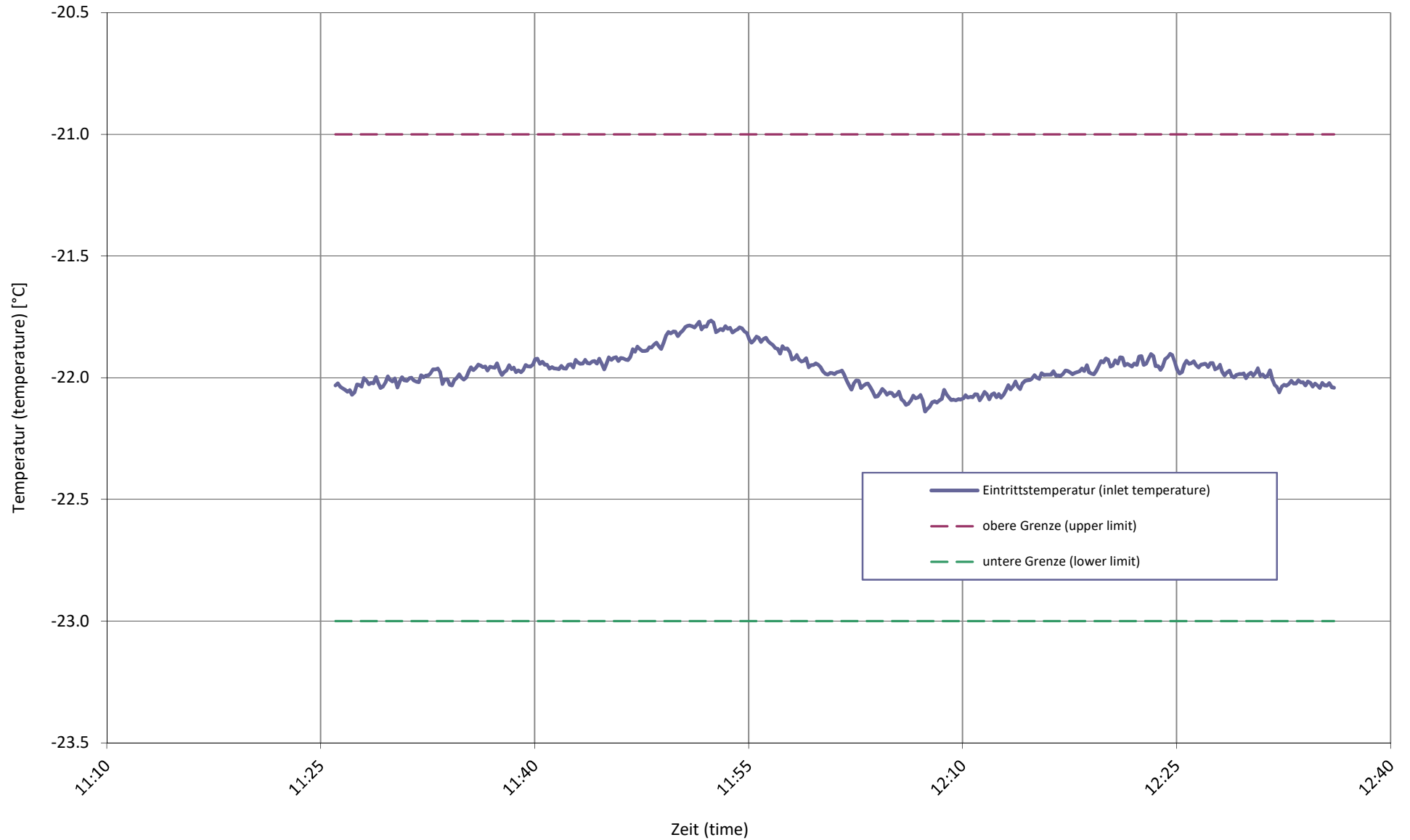
# A-22/Wxx-35 colder E





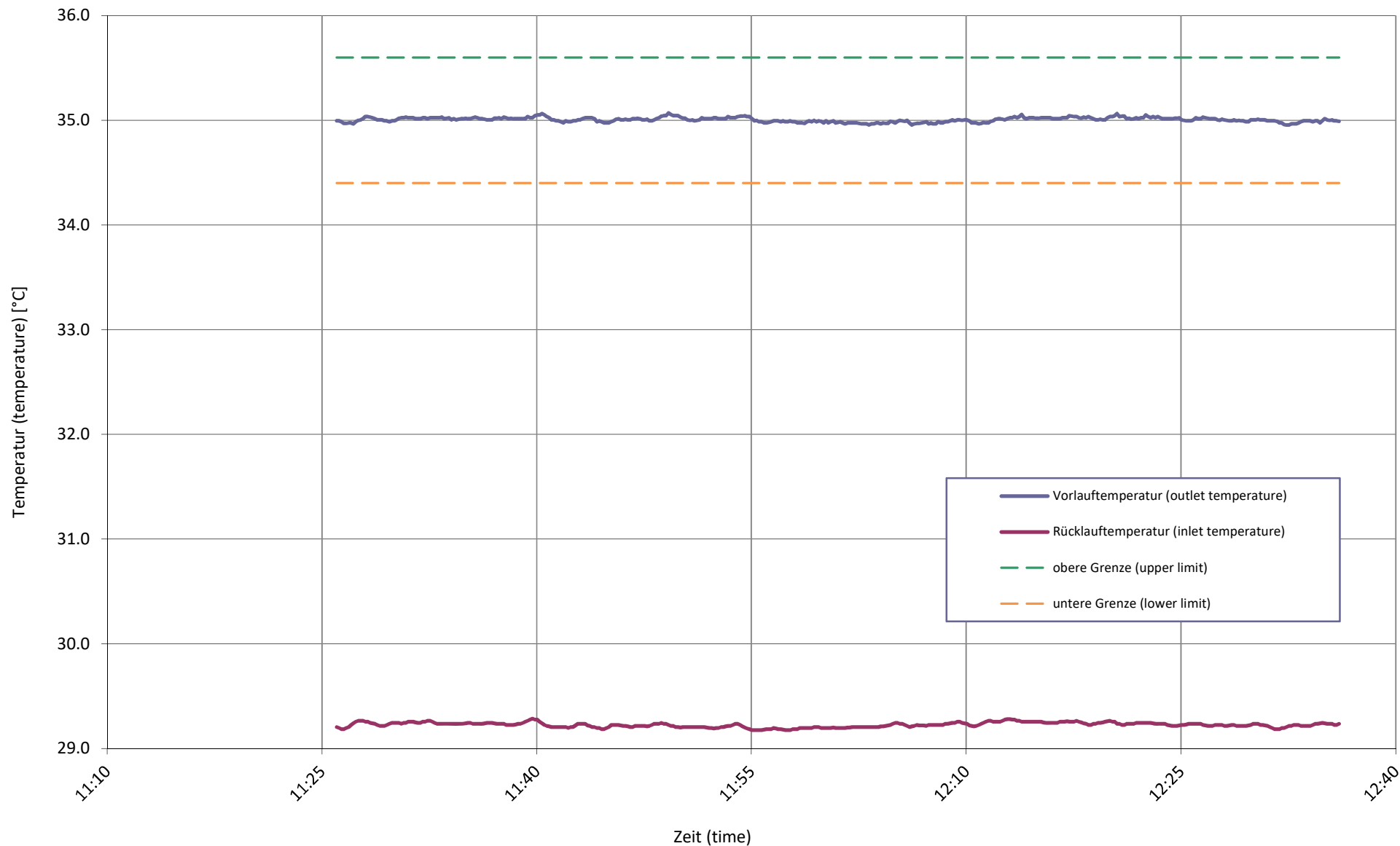
Quellentemperatur bei  
source temperature at

# A-22/Wxx-35 colder E



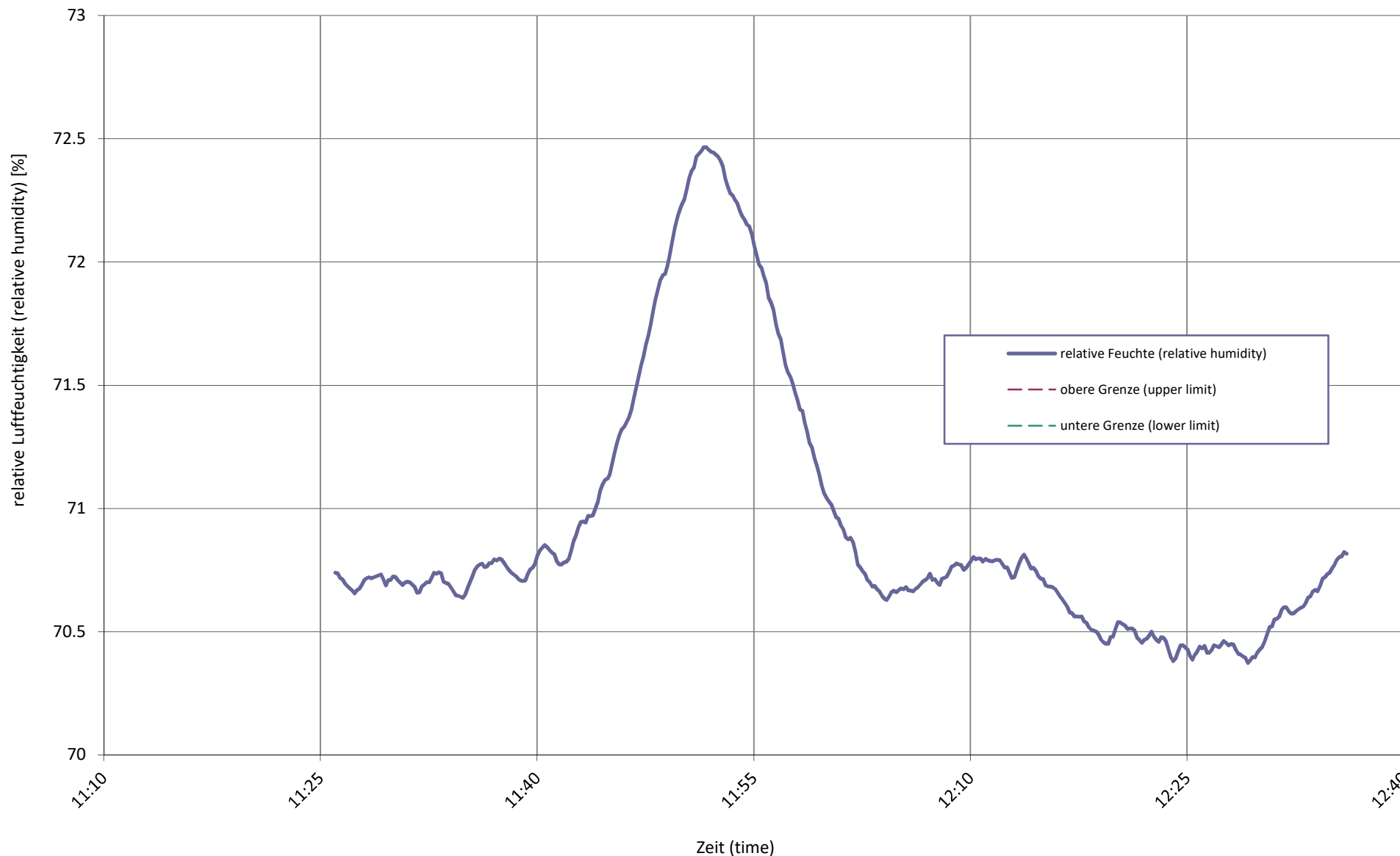
Senktemperatur bei  
sink temperature at

# A-22/Wxx-35 colder E



relative Luftfeuchtigkeit bei  
relative humidity at

# A-22/Wxx-35 colder E



Senkenmassenstrom bei  
sink mass flow at

# A-22/Wxx-35 colder E

